

HUIZINGH

**Geothermal Spas in Hawaii:  
A New Tourist Industry?**  
(A Preliminary Report)

by  
James L. Woodruff

Hawaii Natural Energy Institute  
University of Hawaii  
246 Holmes Hall, 2540 Dole Street  
Honolulu, HI 96825  
(808) 948-7385

## FOREWORD

As this report states, there are three good uses of active volcanism. Study it. Obtain energy from it. Enjoy it.

We are making exciting progress in our studies of volcanism and are on the brink of obtaining a significant amount of electrical power from geothermal energy. At the same time, we are investigating ways of using the earth's heat directly in Hawaii's industries. Already one of the major tourist attractions of our state, the enjoyment of volcanic activity at the Hawaii Volcanoes National Park, annually lures thousands of visitors to our southernmost island.

Since tourism, the shared enjoyment of our natural resources, is Hawaii's largest industry, we certainly must not overlook another promising application of geothermal energy, spa development. Dozens of countries have developed geothermal spas where patrons enjoy the warmth of naturally heated mineral water while spending billions of dollars annually. In Hawaii, however, geothermal spa development has been like Mark Twain's outlook on the weather -- everyone talks about it, but nobody does anything.

I believe this report marks the beginning of a remedy to this situation. Through continued research, planning, and encouragement of the recreational and therapeutic use of one of Hawaii's most valuable resources, a new industry can be born. The development of aesthetically pleasing geothermal spas will significantly improve the economy of Hawaii while enhancing its image as a place of increasingly diverse and pleasurable vacation options.

Patrick K. Takahashi  
Director, HNEI

## CONTENTS

INTRODUCTION.....	1
A LONG HISTORY OF WORLDWIDE USE.....	2
SOURCES OF HOT MINERAL WATER FOR SPAS IN HAWAII.....	3
WHAT'S SO SPECIAL ABOUT THERMAL WATERS?.....	7
COMPOSITION OF THERMAL WATERS.....	8
DISCUSSION OF THE COMPOSITION OF HAWAII'S THERMAL WATERS.....	10
SPAS OFFER A WIDE SELECTION OF AMENITIES.....	10
TYPICAL COSTS FOR SPA USE.....	12
LOOK TO JAPAN FOR IDEAS AND CLIENTELE.....	13
WORK THAT NEEDS TO BE DONE.....	13
A GLIMPSE INTO THE FUTURE.....	14
REFERENCES.....	16
APPENDIX 1 - ADDRESS BY THE HONORABLE DANIEL K. AKAKA	
APPENDIX 2 - SUMMARY OF WORKSHOP PROCEEDINGS ON AGRI-AQUACULTURE APPLICATIONS SESSION	
APPENDIX 3 - COPIES OF SELECTED BROCHURES FROM A VARIETY OF SPAS	

## INTRODUCTION

There are at least three very good uses for active volcanism: Obtain energy from it. Study it. Enjoy it.

We are already obtaining electrical energy and industrial heat from Kilauea's abundant resource by drilling geothermal wells and building power plants. Our Volcano Observatory is recognized as a world renowned center of learning about volcanism. Our Volcanoes National Park allows us to view and appreciate this awesome phenomenon.

For several years I have heard people speculate about the high potential in Hawaii for another way of enjoying this warmth of mother earth -- spas or resorts that would make use of water that is naturally heated and mineralized by volcanic activity.

Among them is Mr. Richard Lyman, respected elder in the Hawaiian community, distinguished statesman, and business leader. In his address at the dedication of the newly constructed Noi'i o Puna Geothermal Research Center in August of 1985, Mr. Lyman related the story of the aging Hawaiian king, Kumukahi, who frequented the hot springs of Puna to relieve his aches and pains. Mr. Lyman questioned why the resource was not currently being utilized for this obvious therapeutic purpose.

In 1985, another noted citizen, U.S. Congressman Daniel Akaka, spoke before the International Symposium of the Geothermal Resources Council in Kona and reminded the audience that, among the many applications of geothermal energy, the use of thermal water in spas is over a billion dollar a year industry worldwide. A copy of his inspiring address is contained in Appendix 1.

At the Invitational Workshop on Geothermal Technology for the Pacific Basin, held in Hilo in 1985, it was also recommended that the use of geothermal water for therapeutic and recreational bathing be explored in Hawaii. A summary of the workshop proceedings is contained in Appendix 2.



These opinions are supported by the fact that a large percentage of Hawaii's nearly 5 million annual visitors are from Japan, Europe, New Zealand, and other countries where the enjoyment of hot springs is a familiar and popular tourist activity.

However, before spas are developed in Hawaii, answers are needed to several important questions dealing with such topics as the suitability of our geothermal waters, sources of water that could be tapped, special equipment and materials needed, land availability, governmental and environmental hurdles, and the economics of this unique business. Though a considerable amount of research is still needed, I decided it would be worthwhile to summarize the information I have gathered to date from historical works, brochures, personal communications, and other sources. I hope this report will stimulate interest in and perhaps accelerate the development of one of Hawaii's most important natural resources.

### A LONG HISTORY OF WORLDWIDE USE

The Greek poet, Homer, mentioned hot springs that may have been the site of ancient Troy. And Tiberias, an early Roman ruler, bathed in mineral springs by the Sea of Galilee to restore his health. Other Romans developed extensive natural baths in Europe, including famous places like Baden-Baden in Germany and Bath in England, which owe their names to the occurrence of hot springs. Especially noteworthy is Spa, Belgium for giving its name to all resorts with mineral springs and a range of other facilities for bathing, exercise, and relaxation.

For centuries, the Japanese have soaked in hundreds of hot springs emanating from their towering volcanic mountains. Certain spas are said to date back to the mythological age of the gods. The hot bath in Japan is a source of mental and physical relaxation, and natural thermal springs are believed to be actually curative or beneficial for a number of ailments.

The Sioux, Crow, Shoshone, Wappo, Tunica and other tribes used many of the more than 16,000 thermal springs in North America for pleasure and the treatment of their ailing. Early settlers reported that the Indians held their watering places sacred and would lay down their weapons and pass the peace pipe with warring tribes while soaking up the powerful medicine.

History indicates that the Aztecs of Mexico, the Pharoahs of Egypt, the Eskimos of Alaska, the Maoris of New Zealand, the Czars of Russia and the people of dozens of other countries throughout the world have made use of thermal waters for health and relaxation.

Today, the enjoyment of naturally heated mineral water is still a popular activity worldwide and has in some locations become a very profitable enterprise. Estimates of income from thermal spas range into billions of dollars annually.

The following note on the popularity of thermal clinics was published recently in a book titled, Geothermal Energy, by H.C.H. Armstead:

"...In 1971 in Italy alone 15 million people were treated at more than 200 thermal clinics for various ailments, while in Russia more than 10 millions are treated annually with thermal waters. The Japanese have an even more impressive record, claiming that about 100 million visitors annually frequent the hotels located near the 1500 (approx.) hot spring resorts in their country."

### SOURCES OF HOT MINERAL WATER FOR SPAS IN HAWAII

Thermal springs, around which spas are usually built, are found in areas that are volcanically active or were active in the recent past. They are also common in areas that have been faulted and intensely folded in geologically recent time.

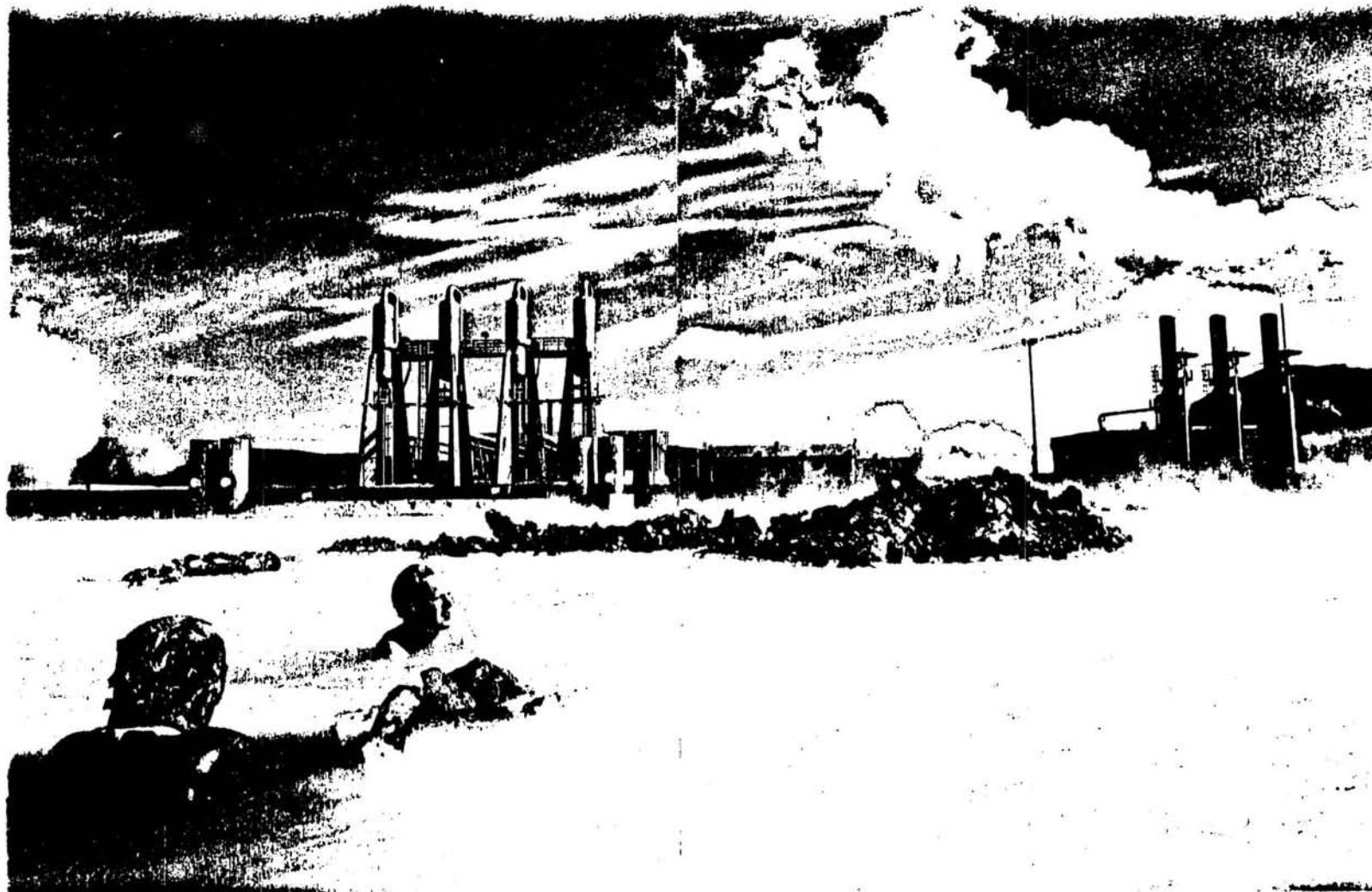
Due to the nature of the geology in the geothermal regions of Hawaii, very few springs or other surface water can be found. The multiple flows of lava that make up the island are highly porous, so that rainfall, which would create springs, streams, and lakes in

less permeable ground, sinks rapidly and deeply into the earth where it can reach very high temperatures from contact with rock heated by volcanic activity. But it does not often return to the surface as hot springs like those found in many other parts of the world.

A potential source of water for spa use in Hawaii is the sterile, hot water from wells drilled for geothermal power plants. This water, which is separated from the steam at the wellhead, does not pass through the power plant, and thus remains in a natural, uncontaminated condition. Using this kind of source would probably require locating the spa relatively near a power plant, since the piping of hot water over a long distance is prohibitively expensive.

While an abundant source of hot water is usually available from power plants, the question of aesthetics may inhibit spa development near power plants. Successful spas usually emphasize the importance of such elements as a well preserved, natural environment, away from any hint of modern industry.

However, proximity to power plants does not seem to dismay Icelanders. Dr. Donald Thomas of the Hawaii Institute of Geophysics recently visited Iceland, where extensive use has been made of geothermal energy for electricity production and heating of living space. He told me of a bathing area that has been created near Reykjavik, with the romantic name, "Blue Lagoon," that is actually a pool of hot water discharged from geothermal wells that supply power plants. Not only has it become a popular bathing spot, stories about the healing properties of the water are already being circulated. A recent issue of National Geographic magazine contains a photograph of bathers in this pool with reference to the healing power of the water. These medicinal claims are universal in the lore of mineral waters. The thermal water in Iceland is chemically similar to that of Puna, on the Island of Hawaii.



# Iceland

---

## Life Under the Glaciers

*In a harsh land of volcanoes, earthquakes, and glaciers, Icelanders have learned both to survive and to prosper at the edge of the Arctic. The Svartsengi geothermal plant harnesses the earth's energy to help heat Iceland's homes, while healing waters in a runoff pond warm bathers.*

By LOUISE E. LEVATHES  
NATIONAL GEOGRAPHIC STAFF

Photographs by BOB KRIST

In Puna, some deep wells have been drilled that were not suitable for electricity production due to inadequate temperatures. These offer another option to spa developers. The owner of one of these wells has stated that he could supply water for spa use at a temperature in excess of 200°F.

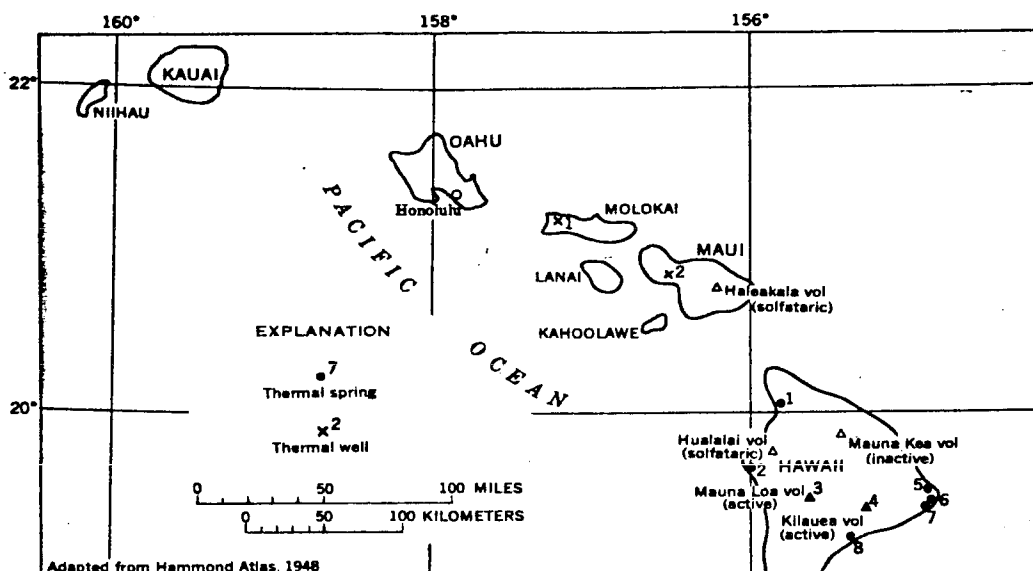
Geothermal wells for electric power production in Puna are usually over a mile deep because the steam production zone is found at that depth. Drilling is costly - as much as \$2 million for a well 6,000 feet deep- and there is a risk of ending up with a "duster," or dry well.

Drilling or digging wells specifically to obtain water for spa development presents a different and perhaps simpler challenge. Very warm or hot water could most likely be obtained at shallow depths in some areas. For example, there are many indications of near-surface thermal water along the coast in Puna, where shallow exploration could be done inexpensively. Hawaii has its own history related to the occurrence and use of thermal water that is interesting to review.

William Ellis, a missionary and historian, wrote in 1826 about his visit to Kapoho and described what may be Kapoho Crater and Green Lake:

"In the center was an oval hollow, about a mile across, and probably 200 feet deep, at the bottom of which was a beautiful lake of brackish water, whose margin was in a high state of cultivation, planted with taro, bananas, and sugar cane.....The placid surface of the lake, disturbed only by the boys and girls diving and sporting in its waters.....They told us the name of the place was Kapoho (the sunken in), and the lake, Ka wai a Pele (the water of Pele). The saltiness of the water in the extinguished volcano proves the connexion of the lake with the sea, from which it is about a mile distant; but we could not learn that it was at all affected by the rising or falling of the tides."

The location of the lake inside a crater, the description of the water as brackish, and its Hawaiian name all suggest water that was affected by geothermal activity. As to the temperature, which is not mentioned, we can look at other historical evidence in the same area.



### Thermal springs and wells in Hawaii

[All issue from or tap Tertiary or Quaternary lava]

No. on fig. 10	Name or location	Temperature of water (°F)	Remarks and references
<b>Maul County</b>			
1	West part of Molokai Island.	93	Drilled well. Water contains Ca (393 ppm), Mg (395 ppm), Na+K 820 ppm, HCO <sub>3</sub> (44 ppm), Cl (2,890 ppm). Ref. 359.
2	Mouth of Ukumehame Canyon on Maui Island.	95	Drilled well. Ref. 357.
<b>Hawaii County</b>			
1	On shore at Kawaihae...	Warm	Ref. 347.
2	Near shore at Kailua...	Warm	Water vapor but no definite flow. Deposit of Glaubers salt (Na <sub>2</sub> SO <sub>4</sub> ·10H <sub>2</sub> O). Ref. 347.
3	In and near crater of Mauna Loa volcano.	Hot	Steam issuing from crevices. Incrustations of sulfur. Refs. 347, 348, 358.
4	Crater of Kilauea volcano.	Hot	Steam issuing from crevices on north edge; used as vapor baths. Also solfataras in bottom of crater. Refs. 345, 346, 348-351, 353-355, 358.
5	0.5 mile northwest of Puu Kukae.	83	Small spring-fed pool at foot of fault scarp. No outflow. Ref. 350 and personal communication from G. A. Macdonald to G. A. Waring (1950).
6	Near north base of Puu Kukae hill.	84	Small flow. Ref. 350.
7	On shore 3 miles south of Kapoho.	91	Do.
8	Near Waiwelawela Point.	Warm	Small flow. Probably on southwest rift zone of Kilauea volcano. Refs. 350, 356, and personal communication from G. A. Macdonald to G. A. Waring (1950).

In 1849, James Dana, an early explorer, mentioned in his geologic report a hot spring, "in a small crater between Kilauea and Kapoho Point." In the same general area, Dr. Gordon Macdonald in 1950 noted a "small spring-fed pool at the foot of scarp. No outflow" that was half a mile northwest of Puu Kukae.

Long time residents of this area remember a popular swimming pool at the base of Puu Kukae, known as Warm Springs, that was inundated by a lava flow in 1960.

A warm pool at Isaac Hale Park that is currently used for bathing by those who know its location is probably the one described by Dr. Macdonald in 1950 as "on shore 3 miles south of Kapoho."

The Malama-Ki well and others in the Puna district contain thermal water with high mineral content, according to a study by Dr. Gary McMurtry and associates of the Hawaii Institute of Geophysics.

A warm "small flow" was also reported by Dr. Gordon Macdonald near Waiwelawela Point several miles down the Puna coast.

Dr. Donald Thomas recently speculated privately that thermal water probably exists extensively along the Puna coast near sea level.

Willis Craddick of the Geothermal Exploration and Development Corporation, the company that has drilled all of the geothermal wells in Hawaii during the last ten years, informed me that he knows of places along the Puna coast where warm water can be detected entering the ocean. And according to Dr. Charles Helsley, Director of the Hawaii Institute of Geophysics, infrared photos taken from the air along the Puna coast also show thermal water mixing with the sea.

William Ellis gave this very early account in 1826 of warm springs in another part of the Big Island, at Kawaihae:

"Between 7 and 8 in the morning, messrs. Thurston and Ellis walked out to the warm springs, a little to the southward of the large helaus, and enjoyed a most refreshing bath. These springs rise on the beach a little below high tide mark. Of course they are overflowed by every tide; but at low tide the warm water bubbles up through the sand, fills a small kind of cistern made of stones piled close together on the side close to the sea, and affords a very agreeable bathing place. The water is comfortably warm, and various medicinal qualities are ascribed to it by those who have used it."

James Dana, the explorer previously cited, also reported warm springs at Kawaihae.

A warm well exists at the mouth of Ukumehame Canyon on Maui and another has been reported in western Molokai.

The steam baths that once existed at Kilauea, were described by G.E. Olson in 1941 in The Story of Volcano House :

"The curative powers of Kilauea's sulphurous steam have, for more than a century, been known and made use of by humans. Whether their medicinal value was known or used by the Hawaiians before the white man came to these Islands is not recorded by history."

He also informs us that the Hawaiians called the vapors, " ka ea o Pele - the breath of mother Pele."

William Ellis wrote about another practical use of natural heat in the vicinity of Kilauea that deserves mention:

"The ground throughout the whole plain is so hot, that those who come to the mountains to procure wood for building, or to cut down trees to hollow them out for canoes, always cook their own food, whether animal or vegetable, by simply wrapping it in fern leaves and burying it in the earth."

### WHAT'S SO SPECIAL ABOUT THERMAL WATERS?

Thermal waters, besides being warmed deep within the earth, usually contain a variety of dissolved elements. Spa owners often attribute curative power to the water and furnish analyses of the chemical and mineral content in support of their claims. Following is a statement from a brochure from Hot Springs, Arkansas, one of the oldest hot spring resorts in the United States:



"The unusual waters of Hot Springs are for the relief of chronic disease where elimination is defective, or wherever it is desired to increase elimination of poisonous products from the various organs. The baths are considered beneficial for rheumatic and gouty conditions, neuralgia, neuritis, arthritis, and allied conditions such as bursitis and fibrositis; In certain forms of anemia; In some forms of cardiovascular disease with high blood pressure, types of prostate and kidney disorders....Bathing in Hot Springs is not a cure-all, but experience has shown that rapid improvement in many cases can be expected. The general tonic and recuperative effects are marked in conditions of debility and neurasthenia due to strain and fatigue incident to social and business cares and responsibilities."

Some of the oldest operating spas in the world are in Europe. Their literature also commonly lists the ailments treated. At one of these spas, a statue of a man breaking his crutch with his bare hands, apparently to demonstrate his rediscovered vigor, dramatically expresses the spa's claims of success.

The healing mineral water of one spa is described as,

"...containing 1,500 mg of mineral substances in solution per liter of water, and free gases, the most important of which is hydrogen sulfide."

It is interesting to note that this gas, which by some has been considered a nuisance and possible health hazard in Hawaii, is regarded as highly beneficial at many of these traditional resorts.

### COMPOSITION OF THERMAL WATERS

The following table shows the major constituents of water from thermal springs and wells at several locations. The composition of seawater is also shown for comparison. Concentrations are in parts per million (ppm). Blank spaces indicate that no values were available and does not necessarily mean that components were absent.

## Composition of Thermal Waters from Several Locations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Na	5190	4.0	230	326.2	520	690	280
K	688	1.5	17	89.6	82	15	0.08
Mg	0.241	4.8	1.7	121.6	38	0.2	0.08
Ca	460	45	12	624	150	210	34
Cl	10243	1.8	2.7	217.6	—	1300	106
SO <sub>4</sub>	<10	8	11	—	420	170	491
SiO <sub>2</sub>	853	42	191	24.0	58	96	—
HCO <sub>3</sub>	—	165	670	—	—	17	—

	(8)	(9)	(10)	(11)	(12)
Na	3090	73	170	54	10500
K	—	10.5	8.5	3.8	380
Mg	324	51	31	3.3	1270
Ca	182	80	16	6.6	400
Cl	5850	84	345	70	19000
SO <sub>4</sub>	681	6.8	65	22	2650
SiO <sub>2</sub>	59	41	72	41	—
HCO <sub>3</sub>	262	551	54	420	140

- (1) HGP-A , Hawaii
- (2) Hot Springs, Arkansas
- (3) Wairakei, New Zealand
- (4) Thermopolls, Wyoming
- (5) Indian Springs, Colorado
- (6) Belknap Springs, Oregon
- (7) Desert Hot Springs, California
- (8) Malama-Ki, Hawaii
- (9) Kapoho Cone, Hawaii
- (10) Pulama, Hawaii
- (11) Keauohana, Hawaii
- (12) Average seawater

## DISCUSSION OF THE COMPOSITION OF HAWAII'S THERMAL WATERS

The high concentration of silica ( $\text{SiO}_2$ ), potassium (K), and calcium (Ca) in the water from the HGP-A well is believed to be the result of dissolution of these elements from the basaltic rocks with which the water has been in contact at high temperature. HGP-A is one of the hottest geothermal wells in the world. The water is thought to be about 50% seawater which accounts for the high amounts of sodium (Na) and chloride (Cl). The composition of the water from the Malama-Ki well in Puna suggests that it may be more than 30% seawater. Note the wide range in composition of the water at the various locations. The mineral content varies from drinking water quality at Hot Springs, Arkansas, to the more concentrated water of HGP-A in Hawaii. Although HGP-A water has the highest values of this group, the concentrations of the major constituents, Na, Cl, magnesium (Mg), and sulfate ( $\text{SO}_4$ ) are less than seawater, and the concentration of calcium (Ca) is about equal to that of seawater. These high concentrations could be considered a positive aspect, possibly increasing their value for spa use.

## SPAS OFFER A WIDE SELECTION OF AMENITIES

Spas of many different descriptions exist around the world, ranging from very luxurious resort hotels to plain and simple swimming and bathing facilities.

Descriptions of some European spas conjure up visions of elegance and natural beauty:

"Slovak watering places are situated in well-preserved and protected natural environment in mountainous wooded valleys, or at the foothills of ranges in well-kept, cultivated parks.....During the summer season, larger spas traditionally organize Music and Theatre Festivals, promenade concerts, sporting, cultural and social events; tours and excursions are arranged for patients to neighboring attractive tourist resorts, to castles, manor houses, towns with historical monuments, museums, etc."

THE  
SPAS  
IN  
SLOVAKIA  
CZECHOSLOVAKIA



At a European spa, a statue of a man breaking his crutch with his bare hands, apparently to demonstrate his rediscovered vigor, dramatically expresses the spa's claims of success. (Brochure from Czechoslovakia)

The world's largest spa, in Beppu, Japan, is described in a recent book titled, Volcano:

"Nowhere in Japan are the waters more important than in Beppu, a city of 146,000 located on the inland sea about 500 miles southwest of Tokyo. Beppu's 12 million tourists each year from Japan and abroad, are the source of the city's livelihood....Buddhist statues watch over bathers at Beppu's Jungle Bath, the world's largest hot spring bath. The 1.6 acres of shallow interconnected pools wind among plants that thrive in the hot, humid atmosphere."

An excerpt from a brochure of a Calistoga, California "modern Spa-Motel" boasts a combination of therapy and enjoyment from soaking in natural hot water and mud:

"These naturally heated waters and mud are one of the oldest therapies known to man. People have been aware for centuries of the benefits and soothing qualities of this wonder of nature. Even the Indians of the area were known to congregate in order to soak in the mud and hot water. Today, people young and old travel to Calistoga to rest, relax, and 'take the waters.'"

Another in the same town stresses pleasure without making any claims about curative properties of the water:

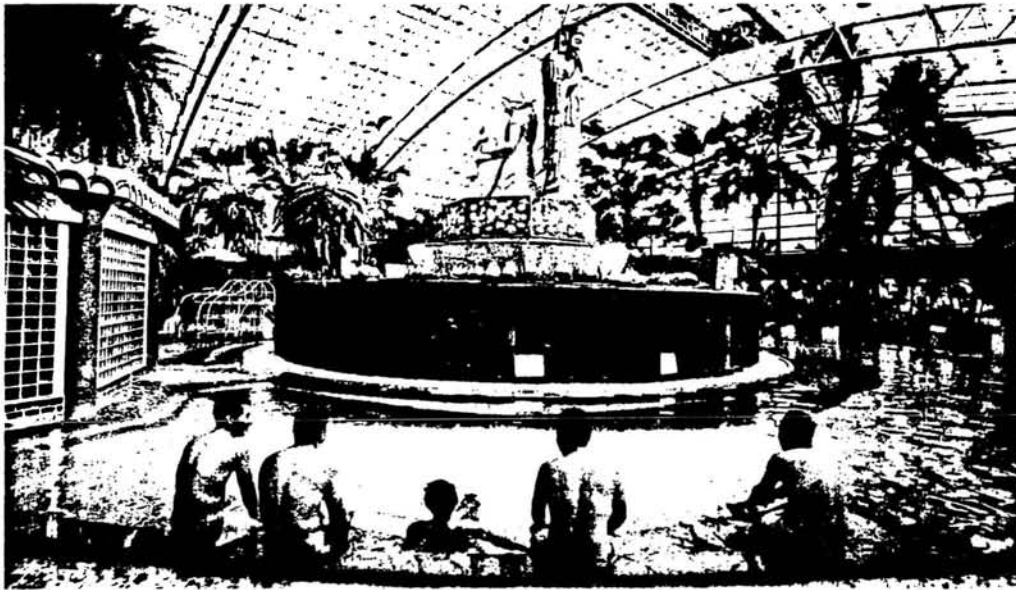
"Come in and relax with us at the Roman Spa. Enjoy the complete comfort of our quality accommodations. Leisurely relax in the tropical atmosphere of our beautifully landscaped and spacious gardens. Ease the tensions in naturally hot mineral pools with invigorating jacuzzi jets and experience the soothing feeling of our mineral water that stimulates circulation as it clears and beautifies your skin."

It is noteworthy that the spas in Calistoga are fed by wells drilled especially for spa development. At what is said to be the oldest spa in Calistoga, as part of my research, I experienced a mud bath combined with several showers, a long soak in a tub of mineral water and a spell in the steam room that left me extremely clean, relaxed and feeling several pounds lighter. The mud bath was an unusual experience that probably would not appeal to everyone, but the outcome was indeed pleasant.

Spas can also be crude and simple like those found in the rustic setting of Chena Hot Springs, Alaska, described by Dr. John Lund of the Geo-Heat Utilization Center of the Oregon Institute of Technology:

"The springs, which originally issued from Cold Springs Creek, now flow into manmade pools after the creek was diverted by a ditch....pools partially covered with sheets of plywood to retain the heat... old-fashioned log gathering house."

## From Luxurious to Unpretentious



"Nowhere in Japan are the waters more important than in Beppu, a city of 146,000 located on the inland sea about 500 miles southwest of Tokyo. Beppu's 12 million tourists each year from Japan and abroad, are the source of the city's livelihood....Buddhist statues watch over bathers at Beppu's Jungle Bath, the world's largest hot spring bath. The 1.6 acres of shallow interconnected pools wind among plants that thrive in the hot, humid atmosphere. ( Beppu, Japan. Volcano, 1982)



"The springs, which originally issued from Cold Springs Creek, now flow into manmade pools after the creek was diverted by a ditch. ...pools partially covered with sheets of plywood to retain the heat... old-fashioned log gathering house." (Chena Hot Springs, Alaska. Lund, 1981)

### TYPICAL COSTS FOR SPA USE

Following are some costs obtained from brochures from spas at various locations in the western United States.

For about 50 "spas" (motels, lodges, inns) listed by the Chamber of Commerce of Desert Hot Springs, California, prices vary from a low of \$20 up to \$125 per day for double occupancy, depending upon the number of amenities offered and the degree of plushness.

Sol Duc Hot Springs Resort in Washington State charges \$3.00 for swimming all day in a warm mineral pool, or \$3.25 for a half-hour soak in a hot mineral tub bath.

The Glenwood, Colorado, Hot Springs Athletic Club charges \$4.25 for adults and \$2.25 for children under 12 to swim all day. At Indian Springs Resort, also in Colorado, where "Hawaiian Luau's" are a specialty in a "lush, tropical setting," mineral baths in separate caves for men and women cost \$7.25, or access to the swimming pool costs \$4.25. At a third Colorado resort, Steamboat Hot Springs, the prices in 1978 were \$3.00 for a private mineral bath, or \$6.00 for a bath with steam, and \$15.00 for a bath and massage.

Further off the beaten path, at Medicine Hot Springs, Montana, you can soak for an hour in a tub of mineral water for \$2.00, or for only \$1.50 if you are a registered guest. There is a charge of \$3.00 for adults and \$2.00 for children who are non-guests to swim in the mineral pool and enjoy the jacuzzi.

In Calistoga, California, mud baths are a specialty and cost \$21.00 at Dr. Wilkinson's Hot Springs. This includes a mineral bath and blanket wrap. A mud bath with a half-hour massage costs \$35.00, and if the massage is an hour long the cost is \$47.00. A bubble bath in hot mineral water containing herbal essence costs \$6.00 for 20 to 30 minutes.

## WHERE TO STAY IN DESERT HOT SPRINGS

[illegible]

\*Has own mineral water well  
†Pays 10% Travel Agent commission  
‡Chamber of Commerce member

Prices subject to change without notice.

Most hotels and motels have weekly and monthly rates. Inquire directly.

All phone numbers in (619) area code

		Number of Units	Units with Kitchens	In-Room Phones	TV in Rooms (C = color)	Air Conditioned Rooms	Therapy Pool (* = indoor)	In-Room Therapy Pool	Swimming Pool	Sauna	Children Welcome	Small Pets Welcome	Restaurant (* = Cocktails)	Credit Cards Accepted	Airport Transportation	Winter Rates (top) Summer Rates (bottom)
*Has own mineral water well. †Pays 10% Travel Agent commission. ‡Chamber of Commerce member.																
Prices subject to change without notice.  Most hotels and motels have weekly and monthly rates. Inquire directly.  All phone numbers in (619) area code.																
Miracle Manor** 12589 Reposa Way	329-6641	6	4	C	X	X*		X			X	X	V,M	X		\$35-\$40 \$25-\$30
Mission Lakes Country Club‡ 8484 Clubhouse Blvd.	329-7420	8		X	C	X X		X			X	X	V,M			\$45 \$45
Mohler's Motel-Spa 11530 Palm Dr.	329-6271	6	4	C	X	X*		X		X	X	X	V,M	X		\$30-\$40 \$30
The Moors Spa Motel** 12673 Reposa Way	329-7121	9	5	C	X	X*		X		X	X			X		\$29-\$34 \$29-\$34
Palmer Lodge Spa† 11171 Ocotillo Rd.	329-6030	12	10	C	X	X		X	X	X	X	X		X		\$55-\$60 \$25-\$30
Pyramid Spa Motel† 6656 E Fifth St.	329-5652	15	9	C	X	X*		X		X	X		V,M	X		\$27-\$33 \$27-\$33
Royal Fox Inn**† 14500 Palm Dr.	329-4481	115	4	X	C	X	X*	X	X	X	X	X	V,M,A	X		\$50-\$125 \$49-\$99
Sahara Motel* 6666 E Fifth St.	329-6666	24	20	C	X	X*				14+	X			X		\$35 \$32
Sandpiper Inn & Spa** 12800 Foxdale Dr.	329-6455	26	22	X	C	X	X*	X	X	X	X		V,M	X		\$39-\$57 \$29-\$44
San Jacinto Motel† 12561 Palm Dr.	329-5258	6	3	C	X	X		X								\$30-\$35 \$25-\$30
San Marcus Motel‡ 66540 San Marcus Rd.	329-5304	15	10	C	X	X		X		X	X			X		\$30-\$38 \$25-\$35
Skyliner Spa**† 12840 Inaja	329-3031	6	6	C	X	X		X								
Sonesta Inn Motel† 13355 Palm Dr.	329-5539	6	4	X	C			X		X			V,M			\$30-\$35 \$25-\$30
Spa Town House‡ 66540 E Sixth St.	329-6014	10	5	C	X	X		X		X				X		\$34-\$40 \$32-\$38
Stardust Resort Motel**† 66634 Fifth St.	329-5443	19	12	C	X	X*		X		X	X		V,M	X		\$33-\$45 \$28-\$40
Straw Hat Lodge Motel 66565 W. Seventh St.	329-6269	9	9	C	X	X		X		X						\$52 \$48
Sunset Inn**† 67585 Hacienda Dr.	329-4488	20	4	X	C	X	X	X	X	16+		X	V,M,A	X		
Tamarix Spa Motel‡ 66185 Acorna	329-6615	9	7	C	X	X*		X			X		V,M	X		\$28-\$50 \$28-\$50
Tradewinds Spa† 11021 Sunset Ave.	329-8081	10	9	C	X	X		X		14+			V,M	X		\$45 \$25
Tranview Lodge**† 11149 Sunset Ave.	329-6751	7	5	C	X	X*		X		X				X		\$20-\$30 \$20-\$30
Tropical Motel & Spa**† 12962 Palm Dr.	329-6610	31	11	C	X	X*		X		X			V,M	X		\$22-\$37 \$20-\$35
Waldorf Hotel* 11190 Mesquite Ave.	329-6491	64	12	X	X	X	X*	X	X	X			V,M	X		
White Horse Spa**† 11285 Mesquite Ave.	329-7125	9	5	C	X	X*		X	X				V,M	X		\$40-\$60 \$35-\$50



### LOOK TO JAPAN FOR IDEAS AND CLIENTELE

Spas of Japan are usually associated with resort hotels, where prices vary from about \$40 to over \$100 per day depending upon the amenities offered and quality of the resort. With the number of Japanese visitors to Hawaii approaching a million per year, a spa developer would be wise to become familiar with the facilities in Japan and endeavor to attract this sizeable tourist market.

### WORK THAT NEEDS TO BE DONE

Spa development is a natural complement to the other uses of the apparently abundant geothermal resource that exists in Hawaii. State and County governments could lead the way by encouraging this new potential industry as it has with prior promising economic concepts. Among the agencies involved in decisions regarding the establishment of thermal spas will be the County Planning Departments, the State Department of Planning and Economic Development, the Health Department, the Department of Land and Natural Resources, perhaps the Department of Parks and Recreation, and other bodies dealing with land use and permitting, including community organizations. Planning will be necessary, because there will be decisions involving land use and zoning, water supply and disposal, environmental and socio-economic impact, resource ownership and royalties, and other factors that entail a maize of rules, regulations, and requirements that could inhibit or prevent progress if the agencies are not prepared.

Further assessment of the thermal water resource will be essential. Specialized equipment and materials will have to be identified. The management and economics of spas around the world should be studied. Imaginative developers will be needed

who can build upon the experiences of others around the world to assure that spas in Hawaii attain a world class degree of excellence.

This is the type of business that local entrepreneurs could enter by forming partnerships to include the necessary elements of land, expertise, and financing. As has been shown, spas exist in a wide variety. In Hawaii they could range from luxurious international resorts to tropical, uniquely Hawaiian places for relaxation.

As an alternative to waiting for the private sector to develop recreational spas, it would be appropriate for the State or County to build and operate the first thermal spa in Hawaii as a recreational facility. It could be managed in a similar manner as our parks and beaches. Presently there are plans to install a hot tub facility at the Puna Geothermal Research Center to literally "test the waters." This is an important step in the work that needs to be done. Although the spa business is not strictly energy development, it is closely related because it involves the use of a natural resource that is a form of energy. Precedents for government leadership in establishing facilities for using energy resources are the creation of the Natural Energy Laboratory of Hawaii at Keahole Point, the HGP-A geothermal well and power plant including the recently created Puna Geothermal Research Center, and other wind, solar and biomass demonstration projects.

### A GLIMPSE INTO THE FUTURE

The following hypothetical letter from a visitor to Hawaii might present a glimpse into the future of this potential tourist industry.

Dear Alice,

What a pleasant day I've had!

This morning a tour bus picked us up at our hotel in this quaint little town of Hilo and took us to the beautiful Volcanoes National Park where we learned all about Hawaiian volcanoes. A fascinating part of the lecture was

the legend of Madam Pele, the Hawaiian goddess who is said to live in Kilauea, an active volcano, and control its power. Many modern day residents still believe in her and pay respect by leaving food and other offerings near the edge of the awesome crater. The scenery around Kilauea is marvelous, and the cool mountain air was invigorating.

On our way down the mountain we made an interesting stop at a one of the geothermal power plants that produce much of the electricity for the State of Hawaii. There are also several industries in the area that operate on geothermal heat such as a lumber drying business and greenhouses where all kinds of vegetables and nursery plants are grown.

But the most enjoyable part of the trip was our time at the Hawaiian Springs Spa, where we stayed most of the day. There we relaxed while soaking and swimming in natural warm mineral water pools in a beautiful tropical setting.

Afterwards, we were served a delicious lunch surrounded by the beautiful flowers and trees at the spa and entertained by Hawaiian musicians. This was such a nice introduction to Hawaii. They say a visit to one of these spas is a good way to overcome jet lag, which we all had after our long trip from Japan. I believe it helped, for I felt very refreshed. At some of the other spas nearby they have health and therapy programs where people can stay as long as they like, but we returned to our hotel in the afternoon in time for a nap before dinner.

I feel I've truly experienced the friendly warmth of Hawaii called "aloha," not to forget the pleasant warmth of the thermal pools, thanks to Madam Pele.

See you in Tokyo in September.

Your friend,  
Kenji

Copies of several brochures are included in Appendix 3 to present information on advertising techniques, costs and other aspects of the spa business.

# REFERENCES

- Armstead, H.C.H. 1977. Geothermal Energy. Halstead Press
- Boddam-Whetham, J.W. 1876. Pearls of the Pacific
- Craddick, W. 1987. Personal Communication
- Ellis, W. 1827. Narrative of a Tour Through Hawaii
- Fujinami, K. 1936. Hot Springs in Japan
- Handy, E.S.C., Pukui, M.K. 1934. Outline of Hawaiian Physical Therapeutics
- Helsley, C. 1987. Personal Communication
- Johnson M.W., Sverdup H.U., and Fleming R.H., 1942. The Oceans
- Kaysing, B. 1984. Great Hot Springs of the West. Capra Press
- Lund, J. July 1978. Steamboat Springs, Nevada. Geo-Heat Utilization Center Quarterly Bulletin
- Lund, J. July 1979. Calistoga, California - Historical Spa Community. Geo-Heat Utilization Center Quarterly Bulletin
- Lund, J. Fall 1981. Chena Hot Springs, Alaska. Geo-Heat Utilization Center Quarterly Bulletin
- Levathes, L. February 1987. Iceland - Life Under the Glaciers. National Geographic, V. 171, No. 2

McMurtry, G., Fan, P., and Coplen T. 1977. Chemical and Isotopic Investigations of Groundwater in Potential Geothermal Areas in Hawaii

Olson, G.E. 1941. The Story of the Volcano House

Sunset Magazine. September 1983. Hot Springs All Over the West

Thomas, D. 1987. Personal Communication

Time-Life Books. 1982. Volcano

Waring, G.A. 1965. Thermal Springs of the United States and Other Countries of the World--A Summary, Geological Survey Professional Paper 492

Wrightman, D., Wall, G. 1985. The Spa Experiment of Radium Hot Springs, Annals of Tourism Research, V. 12, No. 3

Various brochures from spas and resorts from around the world

## **APPENDIX 1**

**ADDRESS BY THE HONORABLE DANIEL K. AKAKA**

## TOTAL ENERGY UTILIZATION: THE NEXT STEP IN GEOTHERMAL ENERGY DEVELOPMENT

ADDRESS BY THE HONORABLE DANIEL K. AKAKA

U.S. Representative, State of Hawaii

To the Geothermal Resources Council 1985 International Symposium on Geothermal Energy

26 August 1985

Kailua-Kona, Hawaii

As the Congressman from the site of the hottest operating geothermal well and home of Madame Pele, I have a deep interest in our geothermal resource. As your opening speaker, I would like to relate my views on the past, present and future of geothermal development in Hawaii.

For those of you not so familiar with the surroundings, let me first share with you some of the lore and legend of Pele. Hawaiians believe that Pele, the goddess who came here from their homeland, is responsible for the volcanic eruptions of these islands. The story is told that, after burning her ancient homeland, Pele was exiled by her brothers. Searching for a new home, she travelled to Hawaii where she tunneled into the earth to find a new place where her fire could be sustained. Pele's home is now here, on the Island of Hawaii, in the pit of Kilauea, which is one of our most active volcanic sites. To many, Kilauea is known as the "navel of the earth".

The ancient Hawaiians believed Pele needed to be appeased when she became violent. Even today, on the occasion of an eruption, you might see a Hawaiian throw twigs of ohelo, a native plant that is sacred to Pele, or a red handkerchief into Kilauea to ease the anger of this ancient deity.

Throughout the past, people have settled near volcanoes to take advantage of their warmth and beauty. The early Hawaiians cooked and bathed in natural hot springs. For centuries, people have enjoyed resorts and spas, around the world, that offer therapeutic bathing. This is now well over a billion dollar per year industry worldwide.

About 25 years ago, a new era began in the use of geothermal energy in Hawaii. Four privately financed exploratory wells were drilled with the hope of using natural steam to produce electricity. Though much was learned, the wells were quite shallow and, unfortunately, were not productive.

Interest in geothermal development was again awakened and spurred on by the 1973 – 1974 oil embargo, which convinced us that energy self-sufficiency was a goal of critical economic necessity.

Thus, with high hopes, we began again in earnest to explore for a viable source of geothermal energy, this time with financial assistance from the federal, state and county governments, and technical assistance from the University of Hawaii and other organizations, including the private sector.

Prophetically, on 4 July 1976—Independence Day—the first successful geothermal well was flashed, and provided hopes for the beginning of energy independence for Hawaii.

The success of this well, named Hawaii Geothermal Project-Abbott, or HGP-A, encouraged private developers to begin drilling exploratory wells and making plans for the construction of geothermal power plants.

Since that time a 3-MW power plant has been powered by the HGP-A well and Hawaii became the second state in the U.S. with on-line electric power generated by geothermal steam.

The plant has been an outstanding success, supplying reliable power to some 2000 homes.

There is an old axiom in geothermal exploration that goes like this: "The best way to get a successful well is to drill next to your neighbor who has already hit steam". This has not always held true in Hawaii, but fortunately we have people with faith and persistence. Exploratory drilling and development plans are underway by private developers, who risk about \$2 million per well, and realize the rewards may be a long way off in view of the lowered price of fuel oil, which determines the price of electricity produced by alternative energy resources.

Federal assistance has played a key role in reaching our present state of success. The HGP-A project cost \$14 million, 85% of which was supplied through federal grants, with the remainder coming from state and county funds.

Other important programs were made possible through cost sharing by the federal government, including a statewide geothermal resource assessment to locate possible development sites; a commercialization program to conduct social, legal, financial, and environmental studies, and to recommend legislation; and a very important feasibility study of an interisland underwater power cable system that would allow us to take full advantage of our geothermal and other natural energy resources.

In Hawaii, we must not only be concerned with harnessing geothermal energy, but also with the means by which this power can be delivered to the major population centers in Hawaii. Thus, the idea of an underwater power cable was born.

The underwater cable is a story in itself. Known as the Hawaii Deep Water Cable, the goal of this project is the development of a state-of-the-art submarine power cable for the Hawaiian Islands. The cable project presents a unique challenge. Because of the geography of our Islands and the hydrography of the surrounding waters, a high voltage submarine cable must be developed that is capable of being deployed in depths up to 7000 feet and over distances of 15 miles. Although submarine cables have been laid successfully in other parts of the world, none come close to meeting the requirements of the Hawaii Deep Water Cable Project.

At this point, I would like to mention a very important factor in our history of energy development. That is the cooperation, or as we say in Hawaiian—*kokua*—of the electrical utilities in our state. In a recent publication by the Center for Renewable Resources in Washington, D.C., I found this statement regarding utilities: "Most have invested vast sums in yesterday's technologies—especially nuclear power—with consequences that are perilous for shareholders and ratepayers alike. Today, the utilities with the best bottom lines are those that have been most innovative."

I am happy to see Hawaii's utilities are among the innovative group and that they are investing in tomorrow's, not yesterday's technologies. This is obvious from their financial statements, as well as the numerous alternative energy projects that exist in Hawaii, largely due to their support and cooperation. This is not only true for geothermal energy projects but also for wind, biomass, hydropower, photovoltaics, ocean thermal energy and other solar energy projects.

While some of the most exciting developments in the field of geothermal energy have taken place right here in Hawaii, we cannot overlook developments occurring elsewhere in the U.S. and throughout the world.

It is estimated that perhaps as much as ten per cent of the world's land mass contains geothermal resources that could be brought to the surface for heating or electricity generation. In addition to Hawaii, there is significant geothermal potential scattered throughout much of the Western United States.

Geothermal energy is recognized as a technologically ready and economic source of energy. It currently provides 20 countries with the energy equivalent of 50 to 60 million barrels of oil per year. About half of this is in the form of direct heat and half as electricity. Although only a



small portion of our world energy supply, geothermal energy provides enough heat to meet the needs of over 2 million homes and sufficient electricity for over 1.5 million homes.

The use of geothermal energy has expanded more than 10% per year since the mid-seventies. It has been shown that geothermal energy can be developed at less than half the cost of a coal or nuclear plant. For this and other reasons, analysts predict a five- to ten-fold increase in the use of this resource by the year 2000.

There are many examples of the application of geothermal resources. In Reykjavik, Iceland, geothermal energy is being used for space heat through a centralized district heating system. Over 60% of the homes in Iceland are heated with hot water produced from geothermal wells.

In Klamath Falls, Oregon, many homes are heated by tapping near-by low-temperature geothermal wells.

In Utah, they are attempting to use geothermal heat for alcohol fuel production.

One of the largest geothermal projects is at The Geysers in northern California which provides an excellent high-temperature reservoir of geothermal steam. This field produces over 1800 MW of power, providing nearly 8% of the region's electricity needs. Their output is expected to double by the end of the century.

Energy plants which will provide over 200 MW of geothermal power are either operating or are under construction in the United States. A 20 MW power plant has just been completed at Roosevelt Hot Springs, Utah, which will feed power to the local utility.

In Heber, California, a 45 MW binary cycle plant to be constructed with the assistance of the Department of Energy is now being planned.

The Department of Energy estimates that the world's geothermal electric capacity will reach 7000 to 17,000 MW by the end of the century. The United States could account for as much as one-third of this total. The lion's share of the U.S. total will come from Hawaii, California and the Rocky Mountain states.

The great advantage of geothermal energy is that it is constant, reliable, and does not depend on intermittent phenomena like wind and sunshine.

The geology of Hawaii presents some of the best conditions in the world for the development of geothermal energy.

During this important week of focus on Hawaii's geothermal resource, plans are being formulated to apply this energy in new ways—to dry and process agricultural crops like macadamia nuts, coffee, papaya and bananas. Experiments will be done in aquaculture—such as growing and processing edible seaweed and other sea foods. New products such as high quality glass, fertilizer, cattle food, and fuels may also be produced. Many new jobs should be created, many exciting business opportunities presented.

As for the future, I predict that countless visitors will come to appreciate this ingenuity, as well as to experience the beauty of this island as they do now.

Geothermal plants, by the end of this century, could supply the total electrical needs of this island and much of the needs of the rest of the state.

Developing geothermal energy can be thought of as going into partnership with Madame Pele. The eruptions that are now taking place can be looked upon in two ways: a warning not to get too close to the source and an affirmation of the abundant power that is available.

I am impressed and proud of the present accomplishments and look forward to the realization of the many applications of this resource that appear so promising.

We should use this lull in the price of imported fuel to prepare for the future. We know that fossil fuels are finite, diminishing and environmentally harmful.

I will continue to work in Washington for support of the efforts that are underway to make this partnership with Pele a fruitful reality. The Puna Research Center was dedicated over the weekend, culminating in a \$15 million investment in geothermal energy. I pledge to involve our

federal government in a reevaluation of their program to consider applying increased R&D funds in application research as has been proposed for the Center, for it seems foolish to discard almost 90% of the heat entering the power-plant. I think it makes a lot of sense to convert waste and nuisance—silica and hydrogen sulfide in particular—into new industries. The Puna Research Center shows promise for transferring basic research technology quickly into the marketplace.

I know that Donna Fitzpatrick and her Department of Energy staff will want to join me in a total systems technology transfer geothermal applications program. To be sure, we appreciate the funds that have been provided, most recently to support the International Research Collaboration Workshop held last week in Hilo and the Community Geothermal Technology program. I understand, too, that additional research monies will be released to initiate research at the Puna Research Center.

However, as electricity represents only one-fourth the energy demand of our nation, and since geothermal fields found in Hawaii, New Zealand, the Imperial Valley and many other locations generally discard nine-tenths the energy (that is, one-tenth is converted to electricity), it is high time that we took a closer look at what we can do with this discarded resource. In so doing, we will not only reduce oil imports, but create new jobs and innovative businesses in agriculture, aquaculture, bioconverted transportation fuel and the like.

This impressive gathering of international specialists has brought geothermal energy development a long way. I congratulate you on your ingenuity in working with the heat of the earth for the benefit of mankind. I would like to challenge you now to take this resource the next logical step to total energy utilization. I stand ready to assist in this endeavor.

Thank you.

## **APPENDIX 2**

### **SUMMARY OF WORKSHOP PROCEEDINGS FOR AGRI-AQUACULTURE APPLICATIONS SESSION**

## SUMMARY OF AGRI-AQUACULTURE APPLICATIONS SESSION

The major applications that were determined to be promising in the Puna District, Hawaii Island, are:

- (1) Food processing (human food, animal feed, and food technology)
- (2) Refrigeration (ice making and cold storage)
- (3) Greenhouse operations
- (4) Dehydration
- (5) Aquaculture
- (6) Balneology.

### *Food processing*

Projects in food processing appear to be highly relevant to the Big Island economy. Dipping papaya in naturally heated water for insect and disease control required for out-of-state shipment may be economical because of the proximity of many papaya fields to the developing geothermal area. Cooking and processing other fruits such as guava should also be investigated.

### *Animal feed processing*

Ranked as high priority was the need for a study of the drying and processing of feed materials for livestock and aquatic animals using geothermal energy. Hay and other feed crops may be dried to produce high energy feeds and roughage.

### *Food technology*

There was a strong recommendation that food technologists be consulted on the possible use of green fruit, culls, leaves, stems and so forth to produce edible products for both human and animal consumption.

### *Ice making and cold storage*

Ice making was considered by the group as an important potential business for the Puna district mainly to serve fishermen, along with refrigerated storage space for local agricultural products. The investigation should determine whether off-the-shelf refrigeration equipment is available for utilizing geothermal heat directly.

### *Greenhouse operations*

Some applications of greenhouses appear feasible and worth examining. These include producing high quality seedlings, rootstock and high value vegetables in a controlled pest-free environment.

### *Dehydration*

Dehydration of local crops to extend shelf life, create new products, or as part of normal processing appears to have promise as an industry. This may not need experimental verification on a small scale since there are full scale plants presently operating in other areas. Some candidate crops are papaya, bananas, macadamia nuts and coffee. Fish and other sea foods might also be preserved by dehydration using geothermal energy.

*Aquaculture*

It was decided that aquaculture experiments would be of value on species that have a history of success and marketability, such as shrimp and fish that require brackish or warm water. Impurities from plumbing materials and chemicals added to the water could cause serious problems with this type of operation.

*Balneology—resort and health spa use*

Finally, a use of geothermal water that does not fall into the category of agricultural or aquacultural use but may have commercial value is therapeutic and recreational bathing. Worldwide this is a significant industry and should be tested for viability in Hawaii.

## **APPENDIX 3**

**COPIES OF SELECTED BROCHURES FROM A VARIETY OF SPAS**



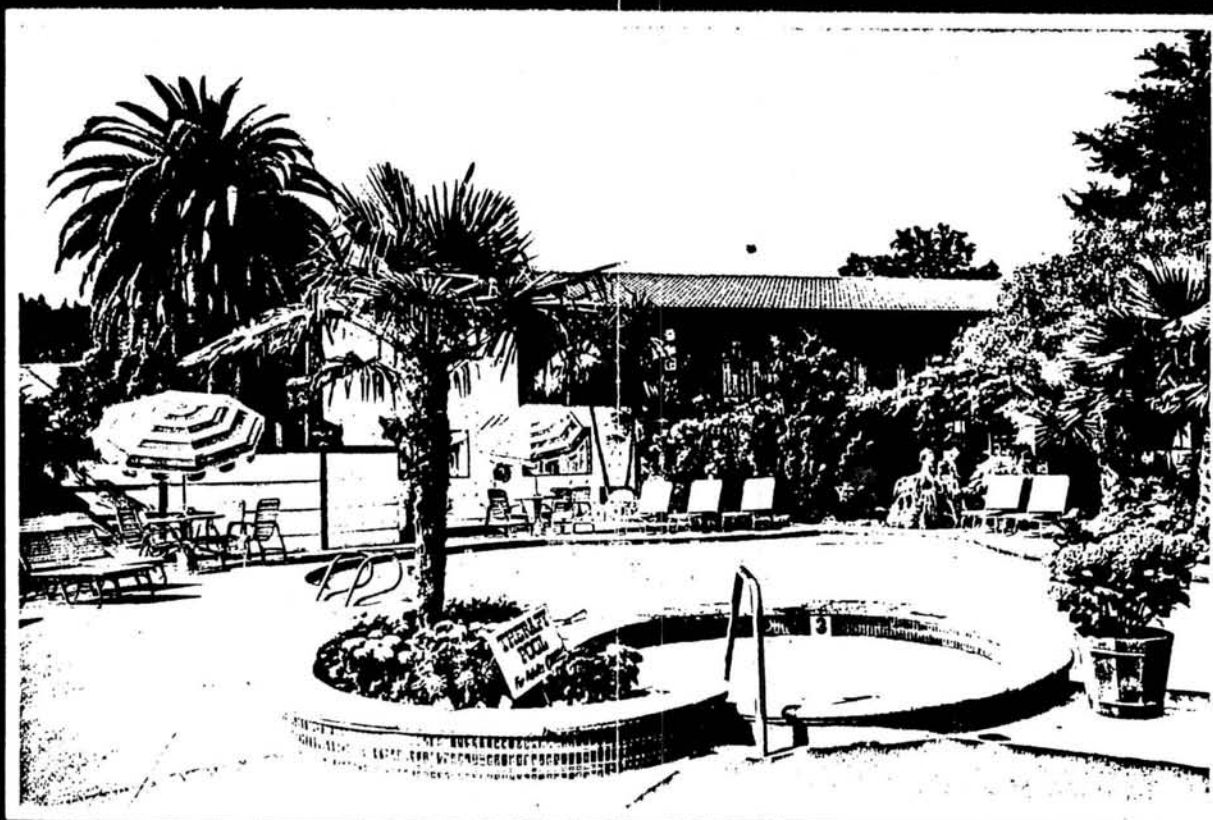
IN THE SCENIC NAPA VALLEY WINE COUNTRY

# ROMAN SPA

HOT SPRINGS RESORT

# ROMAN SPA

HOT SPRINGS RESORT



OPEN ALL YEAR

1300 Washington Street  
Calistoga, California 94515  
(707) 942-4441



# THE GARDEN SPOT OF CALISTOGA

Come and relax with us at the Roman Spa. Enjoy the complete comfort of our quality accommodations. Leisurely relax in the tropical atmosphere of our beautifully landscaped and spacious gardens. Ease the tensions in naturally hot mineral water pools with invigorating jacuzzi jets and experience the soothing feeling of our mineral water that stimulates circulation as it clears and beautifies your skin.

You will find us in Calistoga, at the end of the scenic Napa Valley. Within the surrounding areas enjoy the added attractions of playing golf, tennis, and racquetball. The pleasant days invite you to view the valley while soaring in a glider or floating above the vineyards in a balloon. As you venture through the heart of the wine country visit any of the numerous wineries, the "Petrified Forest," and California's own "Old Faithful" Geyser.

**AIR CONDITIONED DELUXE UNITS HAVE:**  
KING, QUEEN, AND DOUBLE BEDS • COLOR TV  
TUB AND SHOWER • KITCHENS

## **RESORT FACILITIES**

LARGE OUTDOOR POOL 92°  
INDOOR THERAPY POOL 100°  
OUTDOOR JACUZZI POOL 105°  
FINNISH SAUNA

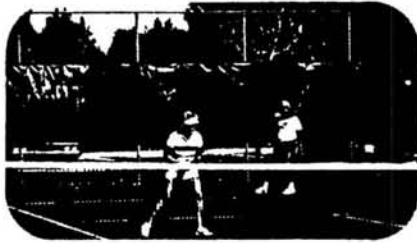
## **BATH HOUSE TREATMENTS**

THERAPEUTIC MASSAGE • HERBAL FACIALS  
MINERAL JET BATHS • FOOT REFLEXOLOGY



California's affordable oasis...

## DESERT HOT SPRINGS



**Where to Stay . . .** The secret to enjoying this famous playground at a reasonable price is to stay in Desert Hot Springs. Almost 80 hotels, motels and condominiums offer excellent accommodations. They range from intimate establishments with fewer than 10 rooms to others with more than 100 rooms and all the facilities you'll find anywhere.

**Transportation . . .** Valley-wide daily bus service connects Desert Hot Springs with all the neighboring communities, the Palm Springs Municipal Airport, a regional shopping center and hospitals. Inter-city buses and limousines connect with other California cities.

**Look to the Future . . .** Anyone looking for a perfect place to vacation, to live and work, to establish a business or to retire would do well to consider Desert Hot Springs. Fine homes and mobile home park spaces are reasonably priced. Nearly 75% of the city's area is available for residential, commercial and industrial development. The future of this young, progressive, forward-looking city is full of vibrant promise.



For more information, please call or write. Indicate any special interests, such as vacation accommodations, hot mineral bath facilities, real estate or commercial and industrial development.

Visitor Information Center  
P.O. Box 848  
Desert Hot Springs, CA 92240  
(619) 329-6403



**You don't need a millionaire's bank account to enjoy a millionaire's vacation or year-round lifestyle in this incredible desert wonderland.**

**Not in Desert Hot Springs!**

**Here you'll enjoy sparkling clear air and brilliant sunshine, magnificent mountain vistas and unmatched recreational opportunities . . . all of the wonderful attributes of the desert at substantially lower cost than you might believe.**



**Finest Climate . . .** Day after day, visitors and residents enjoy cloudless skies and low humidity making outdoor activity enjoyable at any time.

**It's the Water . . .** Desert Hot Springs is internationally famous for its marvelous body-soothing natural hot mineral water. Even Vichy, Baden-Baden and Evian cannot boast of such clarity and purity in their mineral waters.



**Recreational Facilities . . .** The broad fairways and manicured greens of dozens of golf courses are open to the public in the area, including three in Desert Hot Springs. Scores of sun-drenched courts are open to tennis enthusiasts, many without charge. Swimming pools and spas dot the landscape like so many blue diamonds set in the desert sand. Hiking and bridle trails wander through the picturesque desert, deep inside craggy canyons and along switchbacks rising up green mountain slopes all the way to snowy peaks.

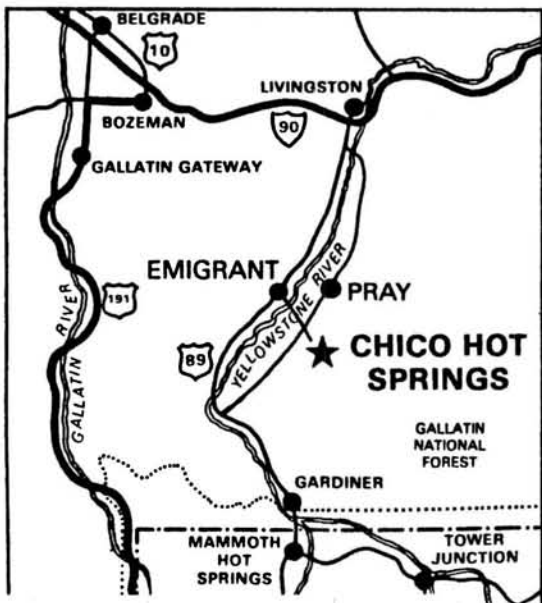
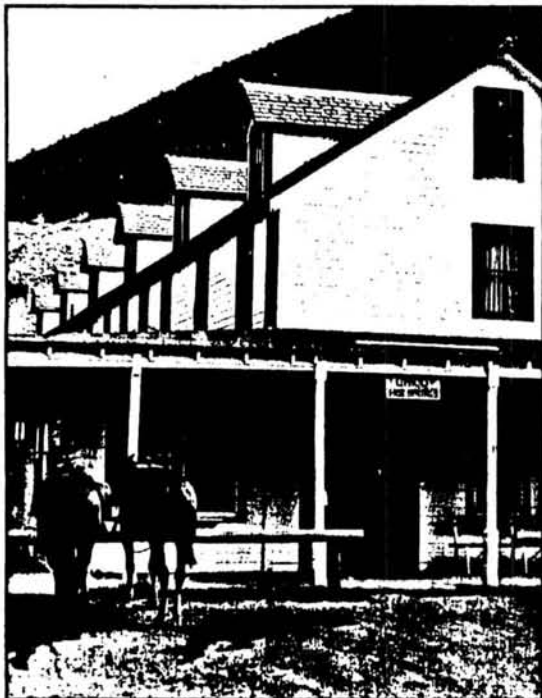
**Dining and Dancing . . .** Fine restaurants featuring a variety in menu, atmosphere and price are located in Desert Hot Springs. And famed "restaurant rows" of other valley communities are only a few minutes away by car or bus. Nightlife runs from clubs and contemporary discos to dining and dancing to sounds of the 40's and 50's.

**Shopping . . .** Unique items of the desert, sun-time fashions and everything else to make your stay in Desert Hot Springs pleasant are at your doorstep. And you are only a short ride by car or bus from high-fashion shops and department stores.



**Sightseeing . . .** There are lots of things for you to see and do in and around Desert Hot Springs. For instance, the community has its very own museum - Cabot's Old Indian Pueblo - where the history of the area unfolds in interesting artifacts. And in just 10 minutes, the Palm Springs Aerial Tram will transport you from a desert canyon to the 8,500-foot level on Mount San Jacinto. You are less than an hour from the magnificent Joshua Tree National Monument, historical Indian reservations, wild life preserves, museums, galleries, quaint mountain villages and a trout farm where you can catch your own dinner. Tour buses will show you all the landmarks, including homes of celebrities who live in the area.

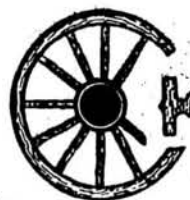




Hot Springs  
Lodge  
Pray, Montana  
59065

CHICO

PLACE  
STAMP  
HERE

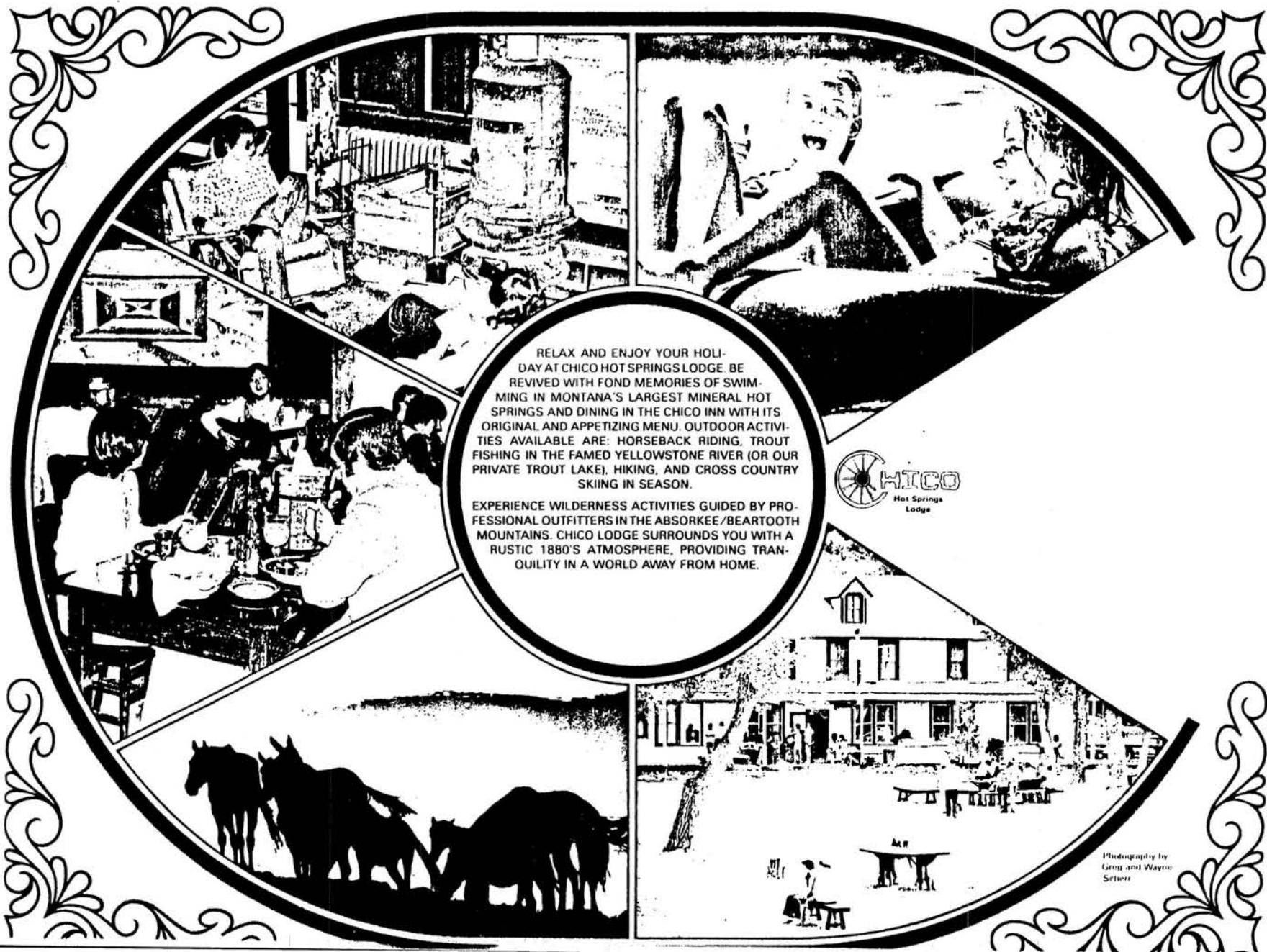


CHICO

Hot Springs  
Lodge



Pray, Montana 59065  
Phone (408) 333-4933



RELAX AND ENJOY YOUR HOLIDAY AT CHICO HOT SPRINGS LODGE. BE REVIVED WITH FOND MEMORIES OF SWIMMING IN MONTANA'S LARGEST MINERAL HOT SPRINGS AND DINING IN THE CHICO INN WITH ITS ORIGINAL AND APPETIZING MENU. OUTDOOR ACTIVITIES AVAILABLE ARE: HORSEBACK RIDING, TROUT FISHING IN THE FAMED YELLOWSTONE RIVER (OR OUR PRIVATE TROUT LAKE), HIKING, AND CROSS COUNTRY SKIING IN SEASON.

EXPERIENCE WILDERNESS ACTIVITIES GUIDED BY PROFESSIONAL OUTFITTERS IN THE ABSORKEE/BEARTOOTH MOUNTAINS. CHICO LODGE SURROUNDS YOU WITH A RUSTIC 1880'S ATMOSPHERE, PROVIDING TRANQUILITY IN A WORLD AWAY FROM HOME.



Photography by  
Greg and Wayne  
Selton



*Steam away pain.*

*Hot packs are relaxing comfort.*



*Stroll along magnolia-lined Bathhouse Row.*



*Bathe with friends.*



*Traditional bathing includes drinking the water.*



*Go directly to the bathhouse from your hotel room.*



*Bathhouse Row.*





# TAKE A WORLD-FAMOUS BATH

**HOT  
SPRINGS**  
NATIONAL PARK  
THE VACATION CAPITAL  
OF ARKANSAS



*Legendary Bathhouse Row*



*Bathrooms to hot tubs*



*Hotels offer special  
bathhouse elevators*



*Thermal water 143° Fahrenheit*



*Cool bathing*



*Cool towels offer refreshment*



*Open display spring*



*Relax away tension*



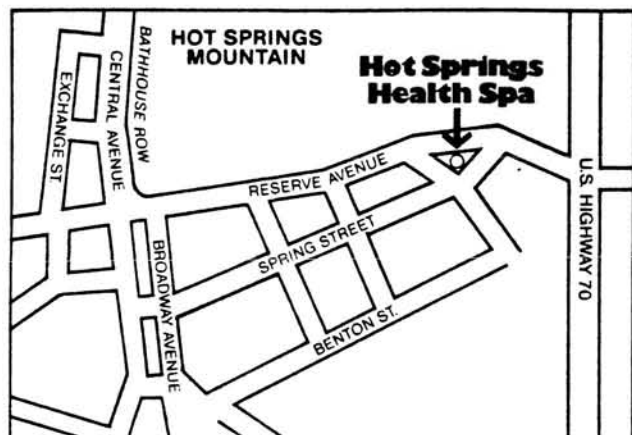
*National Park  
Visitor's Center*

# TAKE A WORLD-FAMOUS BATH

Bathing in Hot Springs  
National Park's thermal waters  
is much more than stepping  
into a tub of hot water.

You are stepping into an experience that is truly world-famous.  
For over five centuries people have been traveling  
to this "valley of the vapors" to soothe away aches,  
pains, tension or to simply relax.  
If you've waited this long for a bath, you might  
as well make it world famous.

You'll find Hot Springs Health Spa conveniently located at 500 Reserve Street near the Hot Springs Post Office and Rehabilitation Center.



No reservations necessary.

Hours of Operation

9 a.m. to 10 p.m. seven days a week.

Hours may vary.

Call (501) 321-9664 or (501) 321-1997 for more information.

You are always welcome at Hot Springs Health Spa. So - come on down and compare our facilities with others. We believe you will appreciate our services and will want to come again!

No initiation fee is required. Your six months' membership fee costs less than the price of 3 hot baths per month.

# HS

## Hot Springs Health Spa

# HS

## Hot Springs Health Spa

*Enjoy the newest  
bathing experience  
in world famous  
Hot Springs National Park,  
Arkansas.*



We have a full service health spa offering you a variety of ways to relax at a very affordable price.

You get all of this on each visit:

- ☐ Coed whirlpool bathing pools
- ☐ Thermal water swimming pool
- ☐ Redwood hot tubs and whirlpool
- ☐ Steam and vapor cabinets
- ☐ Full line of exercise equipment
- ☐ Bubble pool
- ☐ Children under 12, 1/2 price

Additional services are available at additional rates and these include:

- ☐ Complete staff of masseurs and masseuses
- ☐ Therapy Technologists
- ☐ Physical Therapists and therapy assistants

# HS

For those of you who have special problems or injuries, we have a complete physical therapy department at the Libbey Memorial Physical Medicine Center. Patients receive treatment according to Physician referrals and prescriptions. We are a Medicare provider, and our fees are subject to the approval of the U.S. Department of the Interior, National Park Service. We honor private insurance claims.





## DESERT HOT SPRINGS

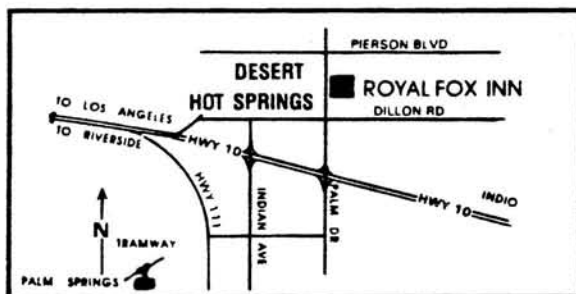
### ENJOY THE DESERT IN DESERT HOT SPRINGS

You'll enjoy the higher elevation of Desert Hot Springs . . . and its fantastic views of Mt. San Jacinto and Southern California's highest peak: Mt. San Geronio. Their snow-capped peaks during winter months are a magnificent backdrop for the showy flowers and warm sunshine which draw people from around the world to this desert resort area.

Get into step with the relaxed lifestyle of the desert . . . be active with nearby tennis and championship golf . . . ride the Aerial Tram high up on Mt. San Jacinto where dining, hiking, and incomparable views await you.

**ROYAL FOX INN's RV PARK**  
Rent by day, month, or year.  
Immediate TV and Telephone hook-up.

The ROYAL FOX INN is a 12-minute drive from the Palm Springs Airport. Will meet planes and busses.



From I-10 east or west, take Palm Drive exit; travel 4 miles north on Palm Drive to the ROYAL FOX INN.

For reservations, write or call

**ROYAL FOX INN**  
14500 Palm Drive  
Desert Hot Springs, CA 92240  
(619) 329-4481

## DESERT HOT SPRINGS CALIFORNIA

# Royal Fox Inn

HOTEL • RESTAURANT • RV PARK • HEALTH CLUB

(619) 329-4481



FOXFIRE RESTAURANT offers Pleasant Dining  
all day, every day - Excellent Food at  
reasonable prices.



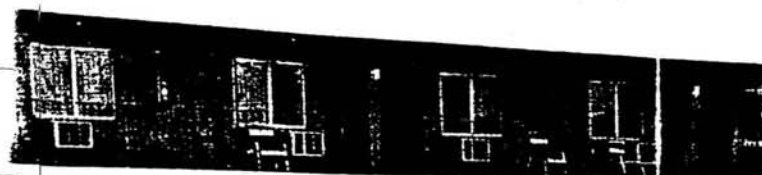
## THIS OASIS IN THE DESERT

Located atop our own mineral water well . . . same natural hot mineral water (no taste or smell) that made Desert Hot Springs famous: healing water highly recommended for arthritis, rheumatism, and sinusitis.

# Royal Fox Inn

HOTEL • RESTAURANT • RV PARK • HEALTH CLUB  
Desert Hot Springs, California

Enjoy the luxurious rooms at the ROYAL FOX INN, Executive Suites with your own Private Pool; also Kitchen Suites, Private Balconies, Satellite TV.



HEALTH SPA with Fully Equipped Gym, Saunas, Massage Rooms, Hair Salon, Boutique — all you need to feel, look and BE your BEST!



and Nutritional Counseling. Complete European-style Massage.

and Enjoy your Vacation. Lose weight in a fully equipped Gym.



*El Reposo*

*Resort Spa*

Desert Hot Springs, California

Once you've dined at the Chico Hot Springs resort, located in the shadow of 11,000-foot Emigrant Peak in the Absaroka Range, you'll be tempted to kidnap the brilliant head chef, Lawrence Edwards, and chain him to your stove at home.

Hank Nuwer  
Outside Magazine  
September 1984

At the restaurant door you are greeted by a tall gentleman named Mike Art. He and his wife Eve have owned Chico for the past several years, and are responsible for the extensive remodeling, with special attention to the dining room...Credit for the cuisine goes to the chef in charge, Lawrence Edwards.

Russell Chatham  
Rocky Mountain Magazine

I have been trying for two years to keep that place Chico a secret and have been telling only my closest friends about its excellent food. I am glad, however, that you did not tell the world about the nearby blue-ribbon trout fishing in the Yellowstone River, about the relaxation of riding horses at the Hot Springs, about the wild and rowdy bar or about the friendly harassment that every visitor gets from Mike Art, the owner.

Martin Peterson  
"Letters" Section  
Rocky Mountain Magazine

For someone interested in good food and drink, in esthetics as well as athletics, I would send them to Chico Hot Springs, a cozy (but far from formal) resort in Pray...

Ann Geracimos  
The Washington Post  
January 23, 1983

At first glance, the hotel seemed unprepossessing, but I was in for some surprises. My dinner in the hotel's elegant dining room was one of the most delicious I have sampled in America.

Christopher Portway  
Passages  
February 1982



"I went out to the hot springs and washed my dirty 'duds'". Such was the first written recognition given Chico Hot Springs on January 16, 1865 in the diary of a miner. For the hundred years that white men have been on the upper Yellowstone, they have been putting to good usage the waters of the hot springs a mile below the mouth of Emigrant Gulch.

The "Chico" name was adapted from the mining camp at the foot of Emigrant Gulch. When gold seekers came there in 1864, they settled on the flat and built Yellowstone City. In 1866 the residents there were visited by six men (one was a Mexican) who had explored the area that would become Yellowstone National Park. They stayed at Yellowstone City several days telling of their experiences. The miners were especially entertained by the little Mexican.

The miners soon deserted Yellowstone City for a site at the very mouth of Emigrant Gulch where they could enjoy better protection from Indian forays. When a mail line was established in 1868, the miners needed a name for their new town. Remembering the jolly little Mexican who had been in camp in '66, they gave his name "Chico" to the burg. The Chico postoffice was established on Feb. 24, 1874. Since Chico had a postoffice, a store and a school, it seemed appropriate to associate the Hot Springs business with it and give it the same name.

It was June 20, 1900, when the new Chico Warm Springs Hotel opened to the public with a big jollification.\*

\*Excerpted from Photo History of Chico Lodge by Bill and Doris Whithorn of Livingston, MT

We are pleased to welcome you to Chico Hot Springs. In order to make your visit with us more enjoyable we offer the following information.

#### SWIMMING

Our natural mineral hot pools are open for our hotel guests from 6:00AM until midnight daily except Sundays and Thursdays when we clean them. On those days we close our pools at 9:30PM. There is no charge to our guests for the use of the pools. Guests are asked to wear bathing suits at all times in the pools and are requested to dress with proper decorum when going to and from the pools in the halls and lobby. The dressing rooms at the rear of the pool area are heated and have shower facilities. The average temperature of the large pool is 94° and the smaller pool is 104°. The analysis of the mineral water in parts per 100,000 is:

Calcium Carbonate.....	8.65	Potassium Chloride...	.83
Magnesium Carbonate...	2.69	Sodium Chloride.....	.58
Sodium Carbonate.....	2.74	Silica.....	3.17
Sodium Sulphate.....	4.87	Total.....	23.53

#### HOT TUBS

We have private California-style hot tubs available by the hour. These may be rented at the Saloon or at the Front Desk. The hot tubs are open from noon until midnight daily.

#### HORSES

Horseback rides are available from Memorial Day through Labor Day. One hour, two hour, half day, full day and overnight trips are available. Arrangements can be made at the stables or at the front desk. We do request 48 hours to arrange half day, full day or overnight trips. In addition, we offer evening steak rides. These include an hour riding time and a steak dinner cooked on the trail. The steak rides must also be arranged 48 hours in advance.

All of our guests are welcome to use our private trout lake at the top of the hill. There is no charge, and you don't need a Montana fishing license. You may keep 6 fish. You are invited to inquire at the desk about fishing on the Yellowstone, fishing pack trips, or fishing in nearby lakes and rivers. Yellowstone National Park trips are also available.

#### THE CRAZY MOUNTAIN COMPANY

Raft trips on the Yellowstone River can be arranged through The Crazy Mountain Company. Half day, full day, white water or scenic trips are available through the summer. Fishing trips can also be arranged. Call Bob at 333-4779 or ask at the front desk. During the winter The Crazy Mountain Company is located on the premises. It is a fully equipped cross-country ski shop with rental equipment available. Half day or full day ski tours and instruction are available. The ski shop carries a variety of books, magazines and accessories for the cross-country skier.

#### SALOON

The Chico Saloon is open from noon to 2:00AM daily from Memorial Day through September. It is open from 4:00PM to 2:00AM Monday through Friday and noon to 2:00AM Saturday and Sunday from October 1 through the end of May. The Saloon offers live music on most Friday and Saturday nights with special parties on Halloween and New Year's Eve.

#### SNACK BAR

Our Snack Bar is open daily 9:00AM to 9:00PM from Memorial Day through September. From October 1 through May it is open Friday, Saturday and Sunday. The Snack Bar serves hamburgers, hot dogs, sandwiches, candy, etc. It also has a variety of games.

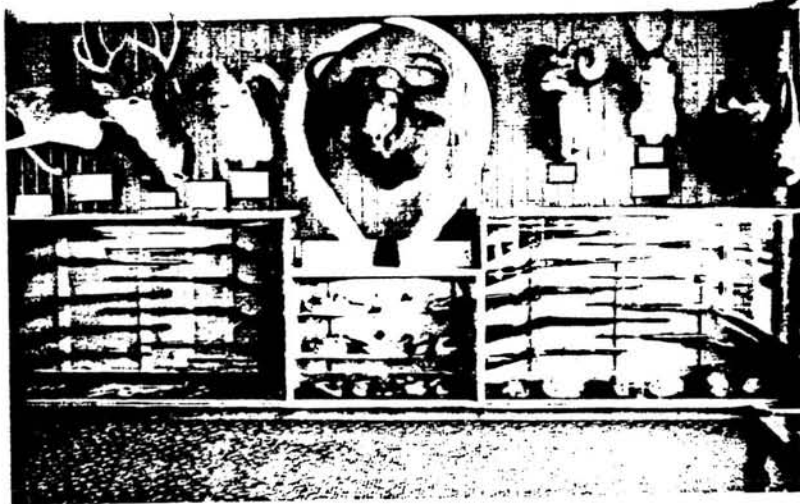
#### CHICO INN

The Chico Inn is our much publicized gourmet dining room. It is open every evening at 6:00PM. Reservations are strongly advised. Breakfast is served Monday through Saturday from 8:00AM - 10:00AM. Sunday mornings we offer our special breakfast buffet from 8:30 - 11:30AM.



# Holiday Inn®

THERMOPOLIS, WY





# **Break-Away Weekend**



at the

**Holiday Inn®**

*of the Waters*

## **Hot Springs State Park**

Thermopolis, Wyoming

---

**THREE DAYS-TWO NIGHTS**

IN

**HOT SPRINGS STATE PARK**

**99.95**

FOR ONLY **per couple.**

---

### **INCLUDES:**

- Lodging for three days and two nights.
- Complimentary bottle of Champagne.
- Steak dinner for two with wine.
- Free use of our hot mineral steam room.
- Complimentary after-dinner drink.
- Use of our year-around outdoor hot mineral Jacuzzi pool.
- Jogging and exercise course.
- Late Sunday check-out.
- Kids under 19 free in your room.

### **ALSO AVAILABLE:**

- Use of our two racquetball courts and extensive exercise rooms. Lessons available.
- Relaxing massages by our massage therapists.
- Saunas, hot mineral tubs.
- Beauty Shop.
- Mirrored waterbed rooms.

## **Holiday Inn of the Waters**

**Hot Springs State Park**

**Thermopolis, Wyoming**

ADVANCED RESERVATIONS REQUIRED

— OFFER EXPIRES MAY 15, 1986 —

**Phone 1-800 Holiday — or — (307) 864-3131**



**Calistoga, California**  
**A MODERN SPA-MOTEL**

MUD BATHS  
MINERAL BATHS  
POOLS  
SUPERIOR ACCOMMODATIONS

REST AND RELAX IN COMFORT  
WHILE IMPROVING YOUR HEALTH



For Reservations,  
Write or Phone:  
Dr. Wilkinson's Hot Springs  
1507 Lincoln Ave. - (707) 942-4102 or 942-6257  
Calistoga, California 94515

**OPEN**  
THE YEAR ROUND



We invite you to join us at Dr. Wilkinson's Hot Springs, in Calistoga, California. Our location in the heart of the world famous Napa Valley makes us the ideal place to spend a relaxing vacation.



In Calistoga, for over 100 years, treatments with naturally heated mineral waters and steam combined with volcanic ash have helped soothe tension, muscular pain & arthritis.

These naturally heated waters and mud are one of the oldest therapies known to man. People have been aware for centuries of the benefits and soothing qualities of this wonder of nature. Even the Indians of the area were known to congregate in order to soak in the mud and hot water. Today, people young and old travel to Calistoga to rest, relax and "take the waters."

#### SPA FACILITIES

Baths and massage are offered in our pleasant and efficient bath-house. There are separate departments for men and women, with helpful bath attendants on duty. Our massage staff has been carefully trained to offer the best in therapeutic massage. We are open daily and appointments are strongly advised.

#### SERVICES AVAILABLE (By Appointment Daily)

- Mud Baths
- Mineral Whirlpool Baths  
(with our own specially designed Whirlpool Machine)
- Natural Mineral Steam Rooms
- Blanket Wraps
- Massage

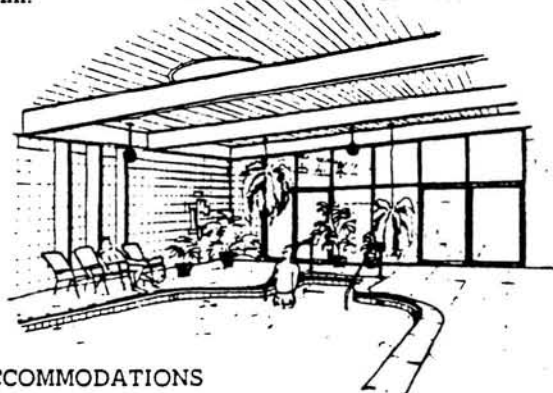
**IF YOU ARE UNDER A DOCTOR'S CARE- PLEASE  
CHECK BEFORE TAKING THE TREATMENTS.**

#### POOLS

Available are two Beautiful Pools-

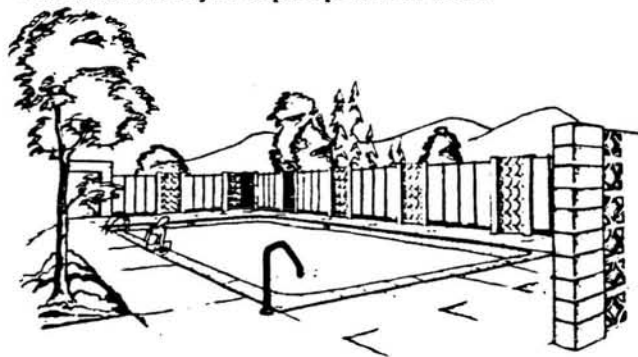
Luxuriate and relax in our indoor pool, which is filled with naturally heated mineral waters and equipped with hydro-jets.

Glass doors open out to a protected sun area where our guests enjoy a view of the surrounding mountains. We've also got a cooler, outdoor swimming pool for a refreshing swim.



#### ACCOMMODATIONS

The choice is yours - from rooms with complete kitchens to spacious rooms with twins, queens or king size beds. Those rooms with kitchens are fully equipped with stove, oven, refrigerator and utensils. All rooms are individually and tastefully appointed, with individually controlled air-conditioning, color television and telephones. Most of our rooms have mini-refrigerators and all have in-room drip coffee makers. Complimentary Calistoga Mineral Water is offered upon check-in, and daily maid service is offered - All the comforts you expect plus a few more!



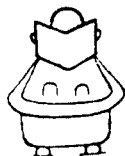
Interesting shops and fine restaurants dot the main street of Calistoga. The Mt. St. Helena Golf Course is 5 blocks away and tennis courts (lit for night time playing) are around the corner. Glider rides, balloon rides, world famous wineries and scenic drives are all nearby. There is plenty to do if you choose to, and remember, we're only 75 miles north of San Francisco. Join us for a relaxing stay or visit for the day. We'll do our best to see that you enjoy yourself!

## WHAT IS A MUD BATH?

Often at the front desk we are asked, "What exactly is a Mud Bath?" Perhaps some of your questions will be answered by the following explanation:

The Mud Bath consists of a volcanic ash powder found in the Calistoga area which is mixed in with the naturally heated mineral water for which Calistoga is famous. This mixture produces a thick, warm black mud into which the bather is immersed. Generally one stays in the mud bath for 10 to 15 minutes, showers, and then goes into the mineral tub bath, taken with our specially designed Whirlpool Machine. Following the whirlpool bath is the natural mineral steam, where one stays usually as long as he or she likes. After the steam room the bather is brought to a booth to be swaddled in clean, dry blankets to rest, relax and slowly cool down. Following the blanket wrap the bather can either dress or continue on with a massage. We call the bath routine with massage "the works" and the time involved is at least two hours. The routine without the massage usually takes about 1 1/4 hours.

Why take the MUD BATH? Because the mud bath is relaxing and cleansing, drawing out toxins and impurities from the system. With the high amount of perspiration that occurs, the skin is refreshed and beautified. For people with muscular aches and arthritis, the mud with its penetrating heat relaxes and soothes sore muscles. And for perfectly healthy people, the mud bath is a great experience that shouldn't be missed!



We are open every day (with the exception of some family holidays) from 8:30 A.M. to 3:00 P.M. Appointments are strongly advised so give us a call to play it safe.

THANKS FOR ASKING!

DR. WILKINSON'S HOT SPRINGS - 1507 Lincoln, Calistoga, CA 94515  
(707) 942-4102 or 942-6257

**Dr. Wilkinson's HOT SPRINGS**  
1507 Lincoln Avenue  
Calistoga, California 94515  
(707) 942-4102 or (707) 942-6257  
**Rest - Relax**

—BATH AND TREATMENT RATES—  
—8:30 a.m. thru 3:15 p.m.—appointments advisable—  
MUD BATH, includes Mineral Whirlpool Bath,  
Steam Room and Blanket Wrap ..... \$27.00

ABOVE ROUTINE with 1/2 HOUR MASSAGE  
"The Works" ..... 40.00

MINERAL WHIRLPOOL BATH, includes Steam Room  
and Blanket Wrap ..... 17.00

ABOVE ROUTINE with 1/2 HOUR MASSAGE ..... 30.00

1/2 HOUR MASSAGE ..... 18.00  
Massage with use of Steam Room ..... 21.00

—One Hour Massage offered—subject to availability—

• GIFT CERTIFICATES AVAILABLE •

### —MOTEL RATES—

#### SECTION I (2 Twin or 1 Queen) Kitchens optional

1 Person, per day ..... \$40.00  
2 Persons, per day ..... 46.00  
Kitchens, per day ..... 5.00 extra

#### SECTION II (2 Queens)-Mini Refrigerator

1 Person, per day ..... \$44.00  
2 Persons, per day ..... 51.00  
3 Persons, per day ..... 58.00  
4 Persons, per day ..... 65.00

#### SECTION III (Kings and adjoining rooms)-Mini Refrigerator

1 Person, per day ..... \$46.00  
2 Persons, per day ..... 55.00

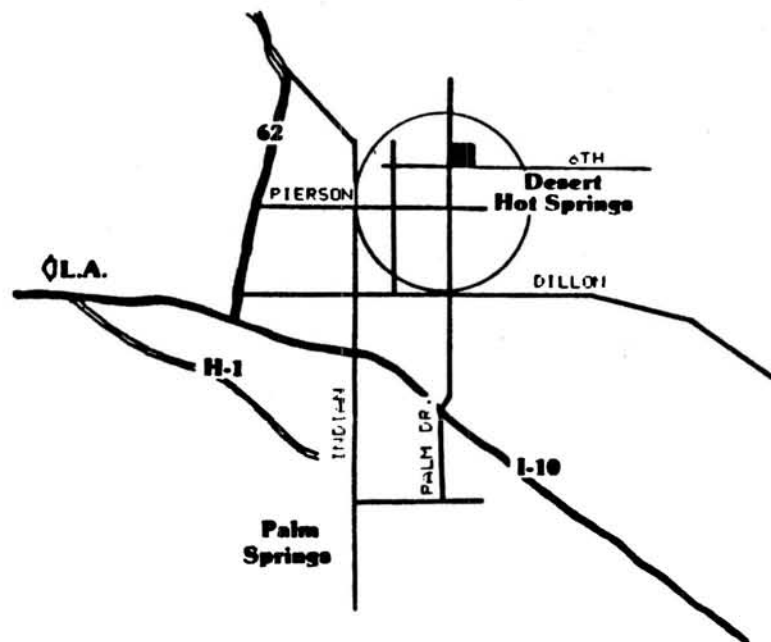
### ROOM RATES INCLUDE:

- COLOR TV • IN ROOM PHONES •
- COMPLIMENTARY CALISTOGA WATER & COFFEE •
- DAILY MAID SERVICE •
- UNLIMITED USE OF INDOOR & OUTDOOR POOLS •
- CHECK-IN TIME: 3:00 to 5:00 p.m. •

—Weekly Motel Rates—(7 Nights)—10% OFF—

Advance Deposit Required—48 Hr. Cancellation Notice

Lodging subject to 10% Lodging Tax.



**CLOSE BY ACTIVITIES:**

- Golf
- Tennis
- Fishing
- Tram
- Horseback Riding
- 10 Minutes from Palm Springs

**David's Spa**

NATURAL HOT MINERAL WATER  
HYDRO JET – JACUZZI POOL  
CONTINENTAL BREAKFAST – SAUNA

11220 PALM DR., DESERT HOT SPRINGS, CA 92240

# DAVID'S SPA MOTEL

**11220 Palm Drive  
6th & Palm  
Desert Hot Springs  
California**

**Phone**

**(619) 329-6202**



### DAVID'S SPA

**A place that sparkles. Nineteen luxurious units with all electric kitchens — completely furnished — two crystal blue natural mineral water pools (one Hydro Jet) — Sauna Room — Recreation Room — Colorful view across the Valley of Palm Springs and the San Jacinto Mountain.**

**CONTINENTAL BREAKFAST INCLUDED  
YOUR HOSTS  
BRUCE & MARY JOHNSTON**

**Reservations Suggested — Deposit Required  
Call (619) 329-6202**

### We Offer:

	<b>Day</b>	<b>Week</b>	<b>Month</b>
<b>STUDIO GROUP</b> #101-106-207	\$39.00	\$234.00	\$936.00
<b>DOUBLE BED</b> #102-201	\$40.00	\$240.00	\$960.00
<b>TWIN BED</b> #208	\$42.00	\$252.00	\$1008.00
<b>QUEEN BED</b> #103-107-108 #202-203-206	\$44.00	\$264.00	\$1056.00
<b>KING BED</b> #104-105 #204-205	\$46.00	\$276.00	\$1104.00
<b>1 BEDROOM SUITE #209 4 PEOPLE</b>	\$85.00	\$510.00	\$2040.00
<b>2 BEDROOM SUITE #109 6 PEOPLE</b>	\$95.00	\$570.00	\$2280.00

**RATES ARE FOR TWO PEOPLE EXCEPT SUITES  
\$6.00 FOR ADDITIONAL GUESTS  
(children are additional guests)  
NO PETS, PLEASE**

**PLUS  
ALL ROOMS HAVE FURNISHED KITCHENS.  
TRANSPORTATION TO & FROM PALM SPRINGS  
AIRPORT & BUS DEPOT IS PROVIDED; ALSO  
TO & FROM THE LOCAL MARKETS.**

*Prices Subject To Change*

70 Years of the cleanest, warmest, most hospitable hot springs in the Northwest.

- \*Jacuzzi
- \*Hot Mineral Springs
- \*Relaxation and Fun
- \*Scenic Mountain Beauty
- \*Modern Warm Pool
- \*Wading Pool for Children
- \*Swimming Parties



## Medicine Hot Springs

warm + friendly

### Relaxation & Fun

In season, one may hunt deer, elk, Rocky Mountain goats, bear and moose in the area. Often times, one may see deer, moose or bear in the vicinity of the resort.

All cabins have electric heat, electric ranges and refrigerators. Cabins furnished with dishes, linen and toilet facilities.

### Chemical Analysis of Water At Medicine Hot Springs

Temperature .....	120°
Silica .....	4
Iron .....	Trace
Calcium .....	3
Magnesium .....	3
Sodium & Potassium Calc. ....	60
Carbonate radicle .....	18
Bicarbonate radicle .....	79
Sulphate radicle .....	40
Chloride .....	10
Nitrate .....	Neg
Hardness .....	20
Total solids .....	237

*Jim & Donna Hanson  
Welcome You*

- \*Excellent Fishing
- \*Curative Mineral Waters
- \*Modern Comfortable Cabins
- \*Big Game Hunting
- \*Mountain Climbing
- \*Horseback Riding
- \*Skiing Starts Late November

### Cabin Rates

Double Occupancy \$28 and up  
Swimming included in cabin rate.  
Cabin occupancy limited to 2 persons per double bed.  
Deposit required.  
Refund policy — deposit returned only if cancelled 14 days prior to arrival date.

### Swims & Jacuzzi

(for non-guests)

\$3.00 Adults — 18 years and up  
\$2.00 Students — 12 to 17 years  
\$1.50 Children — 2 to 11 years

Prices are for each admission.  
Admission price includes jacuzzi.

### Mineral Water Tub Baths

Available for arthritis and rheumatism  
\$2.00 Per person  
\$1.50 Per person for registered guests

One hour limit on tubs

### For Further Information

Write: Medicine Hot Springs  
Conner, Montana 59827

Phone: For Reservations  
(406) 821-3558

Plunge Phone: (406) 821-3542

Located on U.S. Highway 93 in a setting of exceptional beauty and tranquility, the resort is located in the Rocky Mountains of the beautiful Bitter Root Valley.

The colorful hills covered with evergreen trees and a clear sparkling stream running through the grounds is indeed restful and inspiring. Here one may swim in a natural hot water pool, with a wading pool for children. Here one may take private hot tub baths. Here one may fish in the many clear sparkling streams in the area. Here are comfortable cabins for light housekeeping. Our resort offers you simplicity and outdoor life of the hospitable West. Nearby are three beautiful camping grounds maintained by the Forest Service.

From our resort many interesting side trips may be taken. It is about an hour's drive to the famous River of No Return — the Salmon River in Idaho. Another hour's drive takes you to Painted Rocks Lake or to Lake Como. We are 80 miles south of Missoula, Montana. Darby, fifteen miles north, has a Historical Museum. It is 25 minutes to the Battlefield and Big Hole cattle country via oiled highway No. 43. Salmon, Idaho is 60 miles south.

We are located in the finest hunting country in the Northwest.

# **Hot Springs Lodge & Pool**



**AT GLENWOOD**

## **Welcome to Glenwood Hot Springs Lodge & Pool,**

The first people to use the Glenwood Hot Springs were the Ute Indians who traveled to the springs every year to bathe. They believed the springs cured illness, therefore, they named it Yampa Springs which means "Big Medicine". White men discovered the springs around 1860. In 1888 the Grand River (now the Colorado River) was diverted and a stone bathhouse was constructed on what had been an island. This building now serves as our Main Lodge and was completed in 1890 at a cost of \$100,000. The architect was Theodore Von Rosenberg, from Vienna who also designed the Hotel Colorado. Today the world's largest outdoor mineral hot springs pool serves as a year round family resort. We hope you are pleased with our facilities and services.

### **DAILY ADMISSION FEE (Good all day):**

Adults & Teens	\$ 4.25
3 yrs. — 12 yrs.	\$ 2.25
2 yrs. & under	Free

Suit Rental	\$ 1.00
Towel Rental	\$ 1.00

Coin operated lockers are available.

### **ANNUAL SWIM PASS**

Single	\$ 135.00
Married Couple	\$ 225.00
(or Single Parent with one child)	
Family	\$ 270.00
Retired Single	
(65 or over)	\$ 120.00
Retired Couple	
(65 or over)	\$ 155.00

### **Pool Hours:**

**9:00 A.M. to 10:00 P.M.**

### **The Slide:**

4 Rides	\$2.00
8 Rides	\$3.00

The pool will be closed September through May on the 2nd Wednesday of each month. In November it will be closed for 4 days; Tuesday, November 12th through Friday, November 15th.

**September 11, 1985**  
**October 9, 1985**  
**November 12-15, 1985**

**December 11, 1985**  
**January 8, 1986**  
**February 12, 1986**

**March 12, 1986**  
**April 9, 1986**  
**May 14, 1986**

## MISCELLANEOUS FACTS

1. The small pool is 100 feet long and contains 91,000 gallons of water.
2. The large pool is 405 feet long and 100 feet wide at the widest point. It contains 1,071,000 gallons of water.
3. The springs has a daily flow of 3,500,000 gallons of water.
4. The temperature in the pools is regulated during the different seasons:
 

Large Pool: 90 degrees Fahrenheit (winter)  
 Small Pool: 102-104 degrees Fahrenheit (winter)

Large Pool: 86-89 degrees Fahrenheit (summer)  
 Small Pool: 102-104 degrees Fahrenheit (summer)
5. The temperature of the water from the spring is approximately 124 degrees Fahrenheit to 130 degrees Fahrenheit.
6. The water is pumped to the filters by means of two 20 H.P. pumps. These pumps are capable of handling 3,000 gallons per minute.
7. The pool water is filtered constantly with a complete changeover every eight hours.

## WATER ANALYSIS

Azure-Yampah Spring,  
 By Charles F. Chandler, Ph.D.,  
 New York

### GRAINS IN ONE U.S. GALLON OF 231 INCHES OF WATER

Chloride of Sodium .....	1089.8307
Chloride of Magnesium .....	13.0994
Bromide of Sodium .....	0.5635
Iodide of Sodium .....	Trace
Fluoride of Calcium .....	Trace
Sulphate of Potassa .....	24.0434
Sulphate of Lime .....	82.3861
Bicarbonate of Lithia .....	0.2209
Bicarbonate of Magnesia .....	13.5522
Bicarbonate of Lime .....	24.3727
Bicarbonate of Iron .....	Trace
Phosphate of Soda .....	Trace
Biborate of Soda .....	Trace
Alumina .....	Trace
Silica .....	1.9712
Organic Matter .....	Trace
Total Solids .....	1250.0401

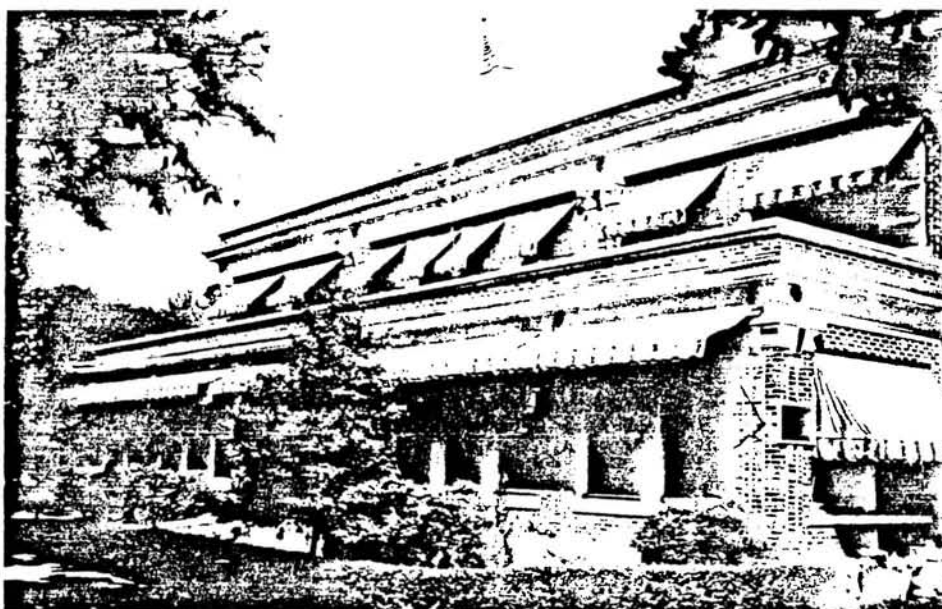


## THE BATHS ARE CONSIDERED BENEFICIAL IN . . .

Arthritis, gout, neuritis, bursitis, myositis and fibrositis. Certain types of anemia, sinus and functional stomach disorders respond favorably to these treatments as do some types of prostate kidney disorders. Nervous tensions, or of a generally run-down condition, the baths and massage through elimination of accumulated body wastes and relaxation of nerves and muscles, restore physical fitness, increasing the body's resistance to disease.

## WHIRLPOOL . . .

Bathing in vigorously churning, air filled, thermal water is highly beneficial in relaxing tensions and pain in many cases, is the acceptable medical opinion. Whirlpool treatment, designed for complete safety, is now installed in the Superior Bath House, and may be added to your bath at extra cost. The result of whirlpool is relief giving factors and better conditioning of the body for maximum benefit of the hand massage. Take A Whirlpool Thermal Bath . . . 1.50 Extra.



## APPROVED RATES . . .

Charges for baths and massages at the Superior Bathhouse are in accordance with the terms of a concession contract with the U. S. Department of the Interior, National Park Service and are inclusive. Bath mitts are available to bathers at cost. Bath and massage tickets are transferable, and all unused tickets are redeemable at the approved rate.

Prices quoted for massage are in addition to bath rates. Massage is especially valuable when taken in connection with the baths as an aid in the elimination of body poisons, stimulates the nerves, muscles and skin while providing a general effect of relaxation of the whole body.

### BATH RATES

18 Baths .....	\$91.70
12 Baths .....	61.70
6 Baths .....	31.25
1 Bath .....	5.30
Single Whirlpool Bath	1.50 Extra

### MASSAGE RATES

18 Massages .....	\$116.55
12 Massages .....	78.60
6 Massages .....	39.75
1 Massage .....	6.70



#### EQUIPMENT . . .

The bather furnishes only the bath mitt used to administer the under-water rub. All towels and sheets are furnished by the bath house. If desired, bathers may provide a shower cap and slippers for their personal convenience.

#### ADDITIONAL SERVICE . . .

Complete cooling and dressing rooms, ladies' hair-drying equipment and lock boxes for care of valuables, are furnished at no extra cost to the bather.

#### LIVING ACCOMMODATIONS . . .

At all times of the year one can find comfortable living quarters in all price ranges. We are always happy to assist visitors who experience difficulty on locating a place to stay, after they arrive in Hot Springs.

Make the Superior your Bath House while in Hot Springs. Our lobby is spacious, with comfortable lounging chairs. At the Superior you will feel at home, meet your friends and secure your mail and telegrams.

For more information about Hot Springs or the Baths, write CAROLYN COSTON, Manager.

# Superior Baths ▽ ▽

At the north end of

*Famous Bath House Row*

HOT SPRINGS NATIONAL PARK  
A R K A N S A S



Under regulation of the U. S. Government

Phone 623-3491

#### BATHING HOURS

##### NEW HOURS

##### Week Days

7:00 A.M. to 11:20 A.M.

1:30 P.M. to 2:20 P.M.

##### Saturdays

7:00 A.M. to 11:20 A.M.

##### Holidays

7:00 A.M. to 10:30 A.M.

Closed on Sundays

*Superior  
Baths*

HOT SPRINGS NATIONAL PARK  
ARKANSAS

*Superior in Service*

# CACTUS LODGE



68061 CALLE AZTECA  
DESERT HOT SPRINGS  
CALIFORNIA 92240

(619) 329-0584

The CACTUS LODGE is a quiet "spa-tel" where you can relax in the clean desert air. With only nine units, it is a peaceful place you will enjoy.

Our facilities include two pools. One is our open-air hot pool; the other is our heated swimming pool. Both are filled from our own natural hot mineral water well. Combine the pools with our sauna (either dry or with steam) and you have the ultimate in healthful relaxation.

We provide a continental breakfast in the lobby each morning, where you may enjoy coffee, tea and toast while reading the morning papers. Cable color T.V. is provided in each unit. We also have a pool table in the lobby for those of our guests who like to play.

If you wish to cook out-of-doors, we have a gas bar-b-que unit on our lower patio, with picnic tables and benches, and, a delightful view of the mountains and Palm Springs area.

Four of our units have full kitchen facilities, or double units (each adjoining a kitchen) can share a kitchen if desired. Two units have kitchenette facilities, everything except an oven. We also have a microwave oven available for use in the lobby.

Additionally, numerous fine restaurants in the area provide enjoyable dining, at moderate prices.

The famous Palm Springs Aerial Tramway, is only a short drive from the Lodge. Downtown Palm Springs is approximately 15 minutes away.

We are one of the closest motels to the National Arthritis Clinic, located two and one-half blocks away. We provide transportation to that clinic and also to downtown shopping, if required.

For a small charge of only \$3.00 each way, we will provide transportation to or from either of the bus stations (Greyhound & Trailways) or to or from the Palm Springs Airport.

Whether you plan to stay with us for a weekend or a month, we are sure you will enjoy the Lodge and its other guests.

With best wishes for your Happy Vacation, we remain,

Sincerely,

Treat yourself to a little luxury at Hot Springs Lodge and Pool in Glenwood Springs, where you may choose from the best of recreation Colorado has to offer. The state's finest ski resorts—Aspen, Snowmass, Sunlight and Vail—are all within easy driving distance, and mountains surrounding Glenwood Springs invite exploration.

Swim in the world's largest natural warm mineral water open air pool, heated with water flowing from Yampah Hot Springs, and cooled to a comfortable swimming temperature with refreshing mountain spring water. The two-block long pool is complete with Olympic diving facilities, and close by is a wading pool for the children.

Relax in the thermal pool heated to approximately 104 degrees, designed to soothe tired muscles. A few steps away is our modern bath house, equipped with showers and lockers for your convenience.

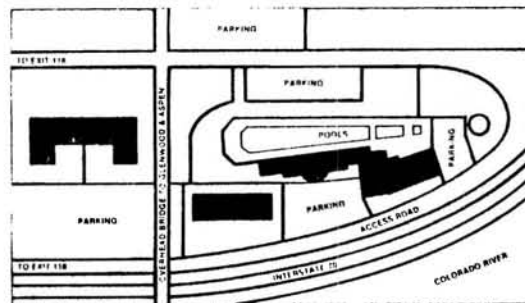
The newly completed Hot Springs Club has a list of activities including handball, racquetball and swimming, with instruction available for these and various other athletic and recreational pursuits. The Club has a Pro-Gym Weight Lifting Machine and a jogging area, as well as bicycle rental. Club activities are open to non-members at non-prime hours.

"Informal" is the dress code for the Hot Springs Restaurant and Lounge. Our menu has a variety of wholesome meals and refreshing beverages from which to choose. During warmer months, enjoy your meals pool-side on the patio adjoining the restaurant.

The City of Glenwood Springs is just a block away—easily accessible to shopping, churches and businesses. And shopping is convenient within the Lodge where you'll find fashion swimwear, gifts and souvenirs available at the Sport Shop.

Treat yourself to a few days at the Hot Springs Lodge and Pool, where the deeply carpeted rooms are spacious and comfortably furnished. All rooms have color cable television, and bath and shower combinations. Adjoining suites are available, as well as minimum rate economy rooms and family suites.

Help yourself to the best of Colorado at the Hot Springs Lodge and Pool. One block off Interstate 70 at Exit 116.



### Hot Springs Lodge & Pool

GLENWOOD SPRINGS, COLO. 81601, P.O. Box 308  
PHONE (303) 945-6571 FROM DENVER 623-3400

Reservations Recommended  
All Major Credit Cards Accepted



# hot springs hot springs

LODGE & POOL  
AND ATHLETIC CLUB



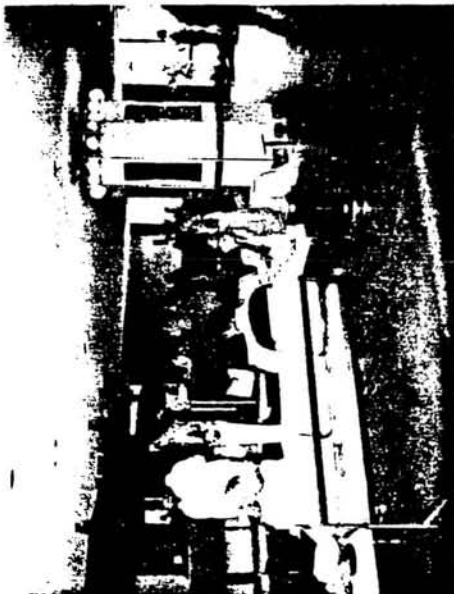
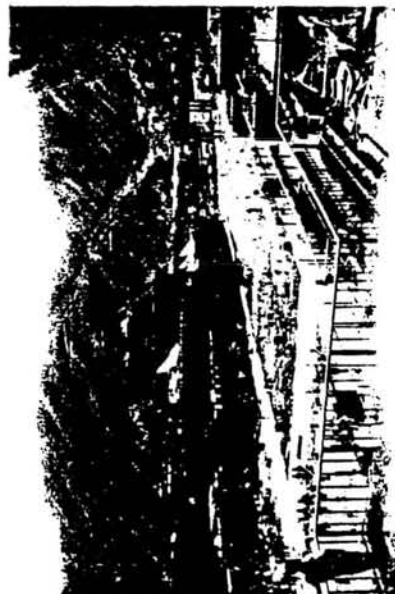
LODGE & POOL  
AND ATHLETIC CLUB



GLENWOOD SPRINGS, COLORADO

GLENWOOD SPRINGS, COLORADO







# Hot Pools Open This Spring





# Lava Hot Springs

## A Four Season Resort

**LAVA HOT SPRINGS RESORT:** One of Idaho's finest attractions, featuring hot pools, beautiful Olympic swimming complex and AAU pool, picnic areas, green lawns, fountains and the beautiful sunken gardens — the site of an extinct crater now terraced and planted 110", completely odor free mineral water — pure enough to drink supplies four outdoor bathing pools, two of which are whirlpools, and smaller, private mini pools — each steam room equipped. Open year around, these pools provide wonderful relaxation after a day of work or recreation.

**THE CITY:** Lava Hot Springs, a friendly, Western town in the heart of the Rocky Mountains on the banks of the historic Portneuf River; 35 miles southeast of Pocatello, Idaho; 45 miles from the Pocatello Municipal Airport; on US Highway 30, which joins Interstate 15, 12 miles west of town. **VACATION PARADISE** offering swimming, golfing, riding, hiking, fishing, hunting, billiards, snowmobiling, cross-country skiing; a Community Building ideal for family reunions and a beautiful City park with lighted tennis courts and picnic areas, a softball field, Tot Land and basketball court to be completed by the fall of 1978. Modern housing accommodations, dining facilities and lounges featuring live music three nights a week, adjacent to the business district; three churches and modern educational facilities, privately owned camp grounds; a medical clinic, ambulance service and nursing home.

**HISTORY:** Portneuf Valley, home of the famous hot springs and beautiful little city, is rich in historic lore dat-

ing back to the time the various Indian tribes set aside their differences to bathe at the springs and worship the "Great Spirit". Westward moving fur trappers first discovered the natural hot waters in 1812. In 1902 the United States Government deeded the area to Idaho "... for health purposes." Most colorful of the many interesting personalities passing thru Lava's history is "The Virginian" — hero of Owen Wister's famous novel of that name. Charles Ball, upon whom Mr. Wister based the fictional character for his novel, became an influential businessman and was one of the first persons responsible for obtaining a chemical analysis of the mineral water. "The Virginian" rests in the Lava Hot Springs Cemetery.

**OUTSTANDING SCENIC BEAUTY, AN ELEVATION OF 5,000 FEET; A CLIMATE THAT IS PLEASANT IN SUMMER AND MODERATE IN WINTER — THAT IS LAVA HOT SPRINGS — A RESORT OF ALL SEASONS!**

**FOR INFORMATION CALL:  
TOURIST INFORMATION CENTER  
(208) 776-5254 OR WRITE: P. O. BOX 387  
LAVA HOT SPRINGS, IDAHO 83246**

**Brochure Courtesy of:  
Greater Lava Hot Springs  
Chamber of Commerce  
Lava Hot Springs Foundation and  
City of Lava Hot Springs**



# Hot Springs

National Park

## OUACHITA MOUNTAINS

Hot Springs National Park is in the Zigzag Mountains, a small range of the Ouachita (*Wash'-i-tah*) Mountain system in the Interior Highlands. The Ouachitas extend from central Arkansas about 220 miles westward into eastern Oklahoma, and average 50 miles in width.

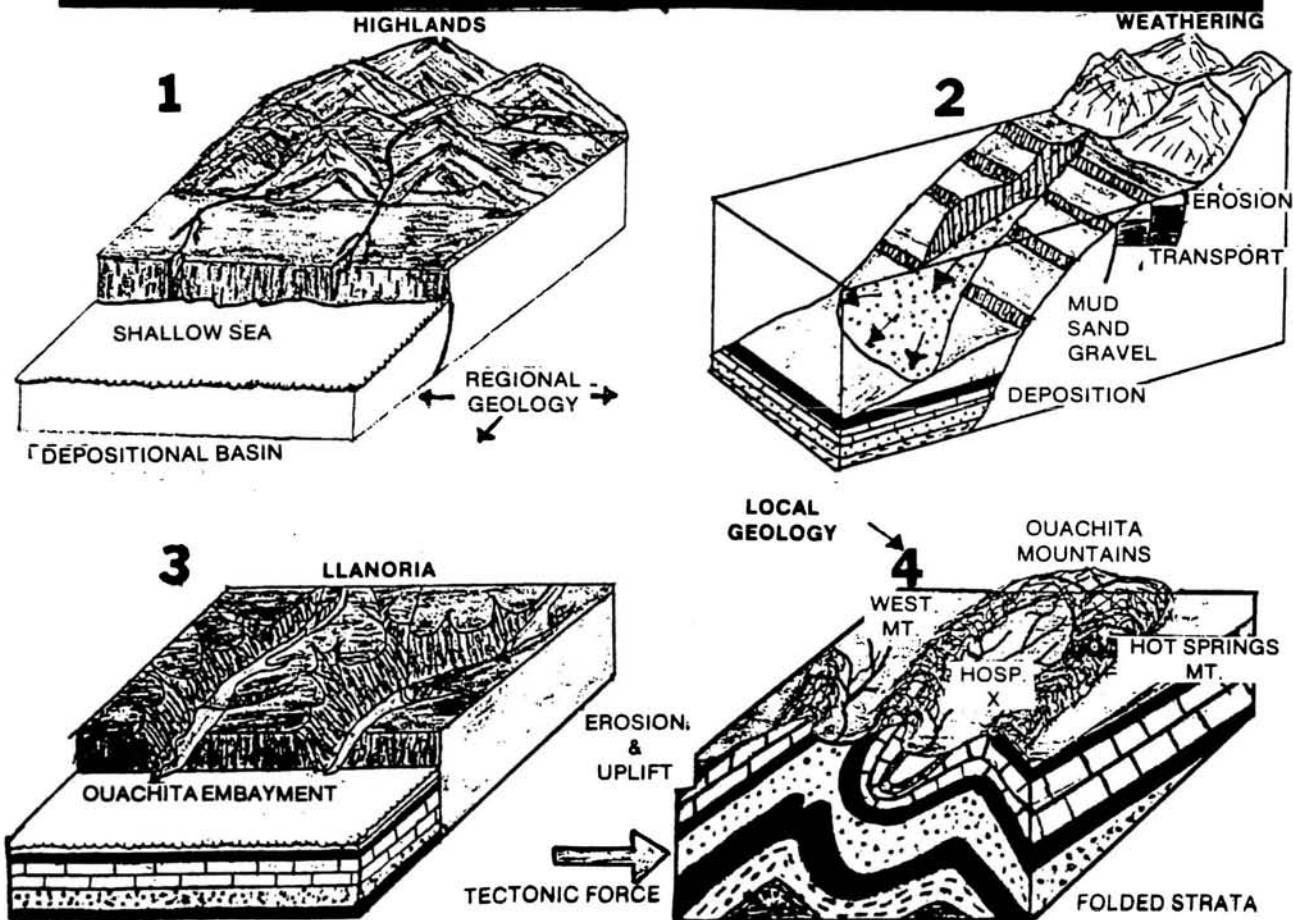
By studying the relationships of rock and their fossil and mineral contents, and interpreting them in the light of what is happening on the earth's surface today, geologists have pieced together a geological history of this region extending over an immense period of time.

In Paleozoic times, 400 million years ago or more, this area lay beneath the Ouachita Embayment, an arm of a sea which extended from what is now Louisiana to New Hampshire. To the south was a lofty mountain range. Throughout a period of many millions of years, erosive forces wore away those mountains, de-

positing gravel, sand, mud and chemical precipitates under the shallow waters on the gradually sinking floor of the Ouachita Embayment. These sediments accumulated to a thickness of over 30,000 feet.

Following the long period of deposition, a period of mountain-making forces lifted and compressed sediments, squeezing an area 100 miles wide into a folded, fractured mass just half that wide. These rocks have remained above sea level for more than 200 million years. At least twice, they have been eroded down to low-lying, relatively flat lands known as peneplains, only to be uplifted again and subjected to further erosion. Parts of the peneplains are apparent now as the relatively flat tops of many of the Ouachita Mountains.

These processes and the rock formations they produced are shown in exhibits in the Visitor Center.



# Hot Springs

National Park

## THERMAL WATER BATHING



### THERMAL WATER BATHING:

All bathhouses in the park are operated by concessioners under contract with the National Park Service. Bathing facilities outside the park in the Arlington, DeSoto, Downtowner, and Majestic Hotels, and the Levi Memorial Arthritis Hospital, utilize the thermal spring water under special use permit.

### TRADITIONAL BATHS:

The traditional bath has been historically available in the bathhouses. The baths were predominately taken in the past for therapeutic purposes. Today, many take the baths as a recreational activity.

#### A TRADITIONAL BATH CONSISTS OF:

1. Safeguarding of valuables in a locked box.
2. Assignment of a male or female bathing attendant, according to gender and division of bathhouse.
3. Undressing and wrapping in a sheet. The sheet is used when going from one bathing procedure to another.
4. Soaking for 20 minutes in 100 degree water in an oversized tub.
5. Scrubbing with a bath mitt (optional, mitt costs extra).
6. Head-in steam cabinet (2 minutes), or heat-out cabinet (5 minutes).
7. Sitz tub, which is sitting in a special tub of 108 degree water for 10 minutes.
8. Application of hot packs up to 4 in number for 20 minutes.
9. Warm shower for 2 minutes.
10. Massages optional at extra cost. (Additional 20 minutes or more.)
11. Cooling and resting for 30 minutes or more.
12. Dressing and retrieval of valuables.

The whirlpool, a device generally available in the last two decades is optional at extra cost.

### PHYSICAL THERAPY:

Hydrotherapy and manipulative procedures must be prescribed by a physician. Most prescriptions are for relief of pain or for the recovery of lost or impaired functions. Hydrotherapy procedures are given in large or small pools and a wide variety of equipment is used for rehabilitation purposes.

### RECREATIONAL POOLS:

Hot tubs provide modern recreational opportunities on a self-regulated basis. Swim suits are required in the hot tub areas, which are available to both sexes.

### RECREATIONAL POOLS & EXERCISE:

Hot tubs, saunas and exercise equipment provide modern fitness opportunities. Other instructions and services are available. Swim suits and exercise outfits are required. The concessioner rents swim suits.



SEE SEPARATE SHEET FOR LIST OF BATHHOUSES, RATES, AND HOURS OF OPERATION.



## *Application and use of the Hot Springs Water . . . .*

The unusual waters of Hot Springs are for the relief of chronic disease where elimination is defective, or where it is desired to increase elimination of poisonous products from the various organs. The baths are considered beneficial for rheumatic and gouty conditions, neuralgia, neuritis, arthritis and allied conditions such as bursitis and fibrositis; in certain forms of anemia; in some forms of cardiovascular disease with high blood pressure, types of prostate and kidney disorders . . . Bathing in Hot Springs is not a cure-all, but experience has shown that rapid improvement in many cases can be expected. The general tonic and recuperative effects are marked in conditions of debility and neurasthenia due to strain and fatigue incident to social and business cares and responsibilities.

## **TO BE SURE . . .**

COME IN AND SEE FOR YOURSELF

### *You Will Like:*

Our conveniently arranged departments. • Services all on one floor. • Air-foam plastic pads on cots in rest areas. • Commercial parking lots within a half-block. • Spacious lounge. • Separate sun decks for ladies and men. • Proximity to theaters, shopping district and bus stops.

### **BUCKSTAFF BATHHOUSE COMPANY**

*Please accept this as a most cordial invitation to bathe at the Buckstaff.*

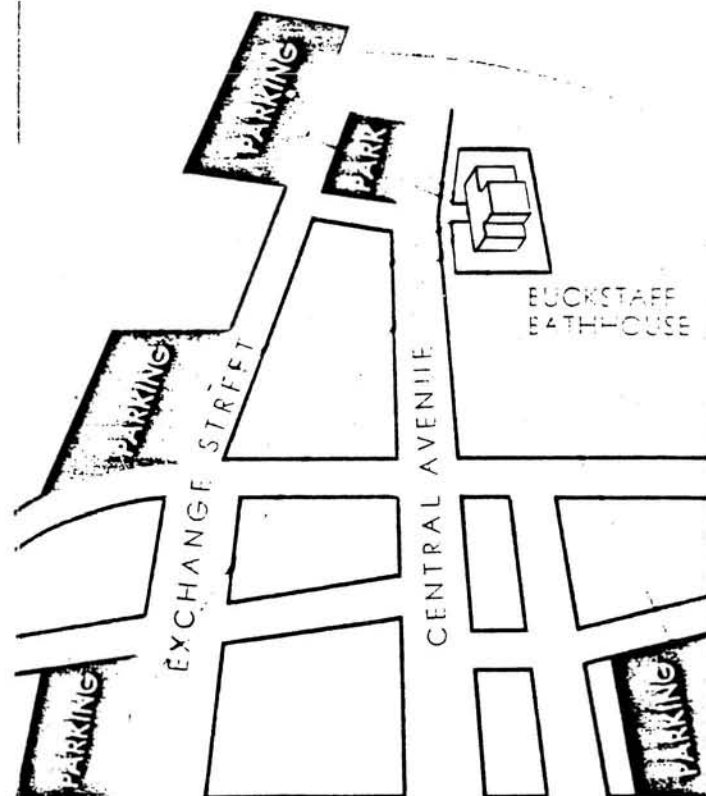
*Our staff will be pleased to show you our facilities which we honestly believe are second to none.*

*We also will sincerely appreciate any suggestions you may have on our services. We'd like you to feel "at home" at the Buckstaff.*

**ORLAND W. KOONCE  
MANAGER**

# **BUCKSTAFF**

**BATHHOUSE COMPANY  
PARK & BATHE**



### **ACROSS THE STREET PARKING AVAILABLE**

Five spacious parking lots are located within easy distance of the Buckstaff.

**HOT SPRINGS NATIONAL PARK, ARKANSAS**

**Hello!** Welcome to Hot Springs National Park, the Nation's Most Famous Spa!

We are happy that you are here and we trust that your visit with us will be most enjoyable and beneficial to you.

SOMETHING NEW

*Whirlpool*



## THE BUCKSTAFF BATHS

One of the out-standing organizations created for the visitor to Hot Springs National Park, and for your comfort, enjoyment—and most important—your health, is the beautiful Buckstaff Bath House, located on well-known Bath House Row. Service with courtesy is the keynote of the Buckstaff Bath organization. The entire staff of bath and massage personnel is trained to a high degree of efficiency to render service that is out-standing. The Buckstaff Building has three floor levels. Elevator service is provided.

On the first floor is the men's department—dressing rooms with steel clothing lockers, and bath and massage departments.

The second floor is given over entirely to like facilities for the ladies.

In keeping with the elegance of our bath and massage departments, Buckstaff provides a lounge on the third floor for your comfort and relaxation. Here are comfortable lounging chairs and sofas, writing tables with stationery and popular magazines—just the spot for a pleasant rest, or for visiting with friends. Off each end of the lounge are our men's and ladies' sun decks for the exclusive use of our guests.



## THE BUCKSTAFF FEATURES

### *Whirlpool* THERMAL BATHS

The Buckstaff is equipped to provide famous Whirlpool baths—tingling surges of Hot Springs Thermal Water, reinforced by tiny air bubbles to bombard the body with tension-relieving effect. Ask your Buckstaff attendant for full details.

## GOVERNMENT APPROVED RATES, Equipment, Personnel and Services

At the Buckstaff, regular baths, Whirlpool baths and massages are administered under regulations prescribed by the National Park Service of the United States Department of the Interior.

All rates also are approved by the Department of Interior. All phases of the bath and massage are included in our listed rates; there are no extra or additional charges, and attendants and massage operators fees are included. For our guests' protection in event of loss, bath tickets are not transferable. Unused tickets, however, may be redeemed for cash at the rate set by the Department of Interior when presented by the original purchaser, on or before three years from date of purchase.

### Bath Rates

1 Bath .....	\$ 5.25
6 Baths .....	30.95
12 Baths .....	61.10
18 Baths .....	90.80

### Massage Rates

1 Treatment .....	\$ 6.50
6 Treatments .....	39.55
12 Treatments .....	76.20
18 Treatments .....	112.95

Bath attendants and massage operators' fees are included in the above rates.

WHIRLPOOL BATHS \$1.50 PER BATH ADDITIONAL

### BATHING HOURS

Monday thru Friday 7:00 to 11:45 a.m. — 1:30 to 3:00 p.m.  
Saturday, 7:00 to 11:45 — Closed on Sunday

## EQUIPMENT FOR THE BATHS AND MASSAGES • Towels and other linens, equipment and supplies necessary for the administration of the bath and massage are furnished without charge. Our guests need furnish only a bath mitt which is used by the attendant during the underwater rub. A shower cap and slippers may be provided by the guest if he desires.



#### TEPLICE V ČECHÁCH

Diseases of the circulatory system  
Nervous diseases  
Diseases of the motoric system  
Occupational diseases



#### JANSKÉ LÁZNĚ — JOHANNISBAD

Nervous diseases  
Diseases of the motoric system



#### PODĚBRADY

Diseases of the circulatory system



#### JESENÍK — GRÄFENBERG

Metabolism- and inner secretion glands disorders  
Nonspecific diseases of the upper respiratory tract  
Mental diseases

